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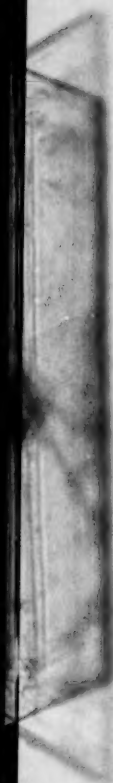
SEPTEMBER 1952—IN TWO PARTS

No. 5

Part 2

Trends in Medical Practice

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Trends in Medical Practice

An analysis of the distribution and characteristics of
medical college graduates, 1915-40

H. G. WEISKOTTEN and MARION E. ALTENDERFER

THIS STUDY of the graduates of the medical colleges of United States and Canada for the years 1935 and 1940 continues surveys of trends in medical practice based on data for the graduating classes of earlier years spaced at five year intervals. The results of the surveys of graduates of 1915, 1920, 1925 and 1930 were published in the *Journal of the Association of American Medical Colleges*.^{1, 2, 3} A preliminary analysis of the factors relating to the distribution of the 1935 and 1940 graduates was published in the *Journal of the American Medical Association*.⁴ Data for all these studies were obtained from questionnaires sent to the individual graduates.

To provide an opportunity for graduates to become more or less established in their careers, these surveys were planned originally to collect information six years after graduation. The impact of World War II on the medical profession, however, was such that it was not considered wise or practical to undertake a study of the 1935 graduates in 1941, nor of the 1940 graduates in 1946. Thus the study of the graduates

of these two years was delayed until 1950. Fortunately, the questionnaires were all sent out before the Korean War began.

The form of the questionnaire used in the present study is shown on pages 40-41. A total of 24,934 questionnaires have been sent out to graduates of the six classes studied. Of them, 17,975 or 72 per cent were returned. The number of questionnaires sent out and the number and percentage returned by the graduates of the individual colleges are shown in table 1. Questionnaires were returned by 64 per cent of the 1935 graduates and by 70 per cent of those who were graduated in 1940.

In an effort to determine how generally representative of all 1935 and 1940 graduates the returned questionnaires were, data on those who did not respond were obtained from the 1950 edition of the *American Medical Directory*. This source provided information on community of practice, year of birth, method and type of practice, specialization and American board certification.

These data revealed that the percentage of returned questionnaires from Canadian college graduates was distinctly lower than from the graduates of American colleges. There was apparently a somewhat higher proportion of returns from those limiting

Dr. Weiskotten is chairman of the Council on Medical Education and Hospitals of the American Medical Association, and Miss Altenderfer is a biostatistician in the Division of Public Health Methods, Public Health Service. Assistance in the collection of the data was provided by a grant from the Public Health Service.

Table 1. Questionnaires returned by graduates of individual American and Canadian medical colleges, 1915-1930, 1935, and 1940 classes

Medical college	Total			Year of graduation								
	Sent	Returned		Sent	Returned		Sent	Returned		Sent	Returned	
		Number	Percent		Number	Percent		Number	Percent		Number	Percent
All colleges	24,934	17,975	72.1	14,185	10,721	75.6	5,315	3,426	64.5	5,434	3,266	70.4
American colleges	23,056	16,885	73.2	13,321	10,165	76.3	4,849	3,186	65.7	4,886	3,134	72.3
Albany	158	127	80.4	102	81	79.4	28	23	82.1	28	21	82.1
Arkansas	169	123	72.8	69	54	78.3	40	24	60.0	40	21	52.5
Baylor	305	217	71.1	159	129	81.1	74	46	62.2	72	42	58.3
Boston	221	161	72.9	127	96	75.6	46	34	73.9	48	31	64.6
Buffalo	342	244	71.3	226	162	71.7	62	46	74.2	54	36	66.7
California	233	181	77.7	134	104	77.6	51	37	72.5	48	40	83.3
Chicago Medical School	130	63	48.5	1/	-	-	77	30	39.0	53	33	62.3
Chicago University	51	42	82.4	2/	-	-	18	16	88.9	33	26	78.8
Cincinnati	258	188	72.9	120	100	83.3	65	42	64.6	73	46	63.0
Colorado	189	155	82.0	98	84	85.7	43	31	72.1	48	40	83.3
Columbia	552	431	78.1	367	288	78.5	87	63	72.4	98	80	81.6
Cornell	309	221	71.5	182	123	67.6	60	46	76.7	67	52	77.6
Cwrighton	262	194	74.0	144	113	78.5	65	41	63.1	53	40	75.5
Duke	103	75	72.8	3/	-	-	46	29	63.0	57	46	80.7
Emory	383	279	72.8	262	207	73.4	53	35	66.0	48	37	77.1
Georgetown	368	225	61.1	184	120	65.2	105	45	42.9	79	60	75.9
George Washington	284	182	64.1	137	102	74.5	71	44	62.0	46	36	78.3
Georgia	145	102	70.3	81	65	80.2	33	21	63.6	31	16	51.6
Hahnemann	404	257	63.6	180	122	67.8	101	57	56.4	123	78	63.4
Harvard	690	562	81.4	429	344	80.2	130	103	79.2	131	115	87.8
Howard	268	138	51.5	186	99	53.2	50	20	40.0	32	19	59.4
Illinois	662	447	67.5	395	271	68.6	112	74	66.1	155	102	65.8
Indiana	449	342	76.2	256	210	82.0	89	61	68.5	104	71	68.3
Iowa	378	315	83.3	248	215	86.7	61	46	75.4	69	54	78.3
Jefferson	822	634	77.1	566	441	77.9	133	95	71.4	123	98	79.7
Johns Hopkins	457	375	82.1	327	280	85.6	63	42	66.7	67	53	79.1
Kansas	238	173	72.7	110	85	77.3	61	42	68.9	67	46	68.7
Long Island	507	359	70.8	336	251	74.7	91	59	64.8	80	49	61.2
Louisiana	115	66	57.4	4/	-	-	49	24	49.0	66	42	63.6
Louisville	380	287	75.5	222	173	77.9	75	50	66.7	83	64	77.1
Loyola	313	187	59.7	139	89	64.0	85	48	56.5	89	50	56.2
Marquette	265	186	70.2	136	109	80.1	64	37	57.8	65	40	61.5
Maryland	420	348	82.9	289	216	74.7	103	69	67.1	98	66	67.3
Medical Evangelists	349	250	71.6	173	128	74.0	90	60	66.7	86	62	72.1
McHarr	241	109	45.2	168	79	47.0	35	13	37.1	38	17	44.7
Michigan	651	500	76.8	428	340	79.4	100	70	70.0	123	90	73.2
Minnesota	520	403	77.5	315	257	81.6	95	63	66.3	110	83	75.5
Nebraska	366	291	79.5	217	184	84.8	76	57	75.0	73	50	68.5
New York Med. College	225	136	60.4	112	68	60.7	62	36	58.1	51	32	62.7
New York University	661	485	73.4	414	305	73.7	123	84	68.3	124	96	77.4
Northwestern	602	453	75.2	333	254	76.3	139	98	70.5	130	101	77.7
Ohio	357	269	75.4	204	164	80.4	77	54	70.1	76	51	67.1
Oklahoma	213	155	72.8	111	84	75.7	53	37	69.8	49	34	69.4
Oregon	211	165	78.2	114	97	85.1	49	32	65.3	48	36	75.0
Pennsylvania	702	546	77.8	442	346	78.3	131	97	74.0	129	103	79.8
Pittsburgh	257	200	77.8	149	130	87.2	62	41	66.1	46	29	63.0
Rochester	111	100	90.1	24	22	91.7	42	37	88.1	45	41	91.1
Rush	707	517	73.1	473	344	72.7	126	94	74.6	108	79	73.1
St. Louis	512	358	69.9	326	233	71.5	103	59	57.3	103	66	64.1
South Carolina	188	140	74.5	109	84	77.1	40	26	65.0	39	30	76.9
Southern California	75	58	77.3	5/	-	-	28	23	82.1	47	35	74.5
Stanford	209	172	82.3	110	96	87.3	45	36	80.0	54	40	74.1
Syracuse	217	196	90.3	136	120	88.2	42	37	88.1	39	39	100.0
Temple	300	194	64.7	100	64	64.0	89	51	57.3	111	79	71.2
Tennessee	400	274	68.5	212	161	75.9	94	51	54.3	94	62	66.0
Texas	363	270	74.4	200	154	77.0	76	49	64.5	87	67	77.0
Tufts	559	375	67.1	360	248	68.9	106	62	58.5	93	65	69.9
Tulane	571	400	70.1	336	253	75.3	118	64	54.2	117	83	70.9
Vanderbilt	302	222	73.5	203	145	71.4	47	34	72.3	52	43	82.7
Vermont	188	150	79.8	118	98	83.1	34	23	67.6	36	29	80.6
Med. Col. of Virginia	401	293	73.1	268	199	74.3	74	53	71.6	59	41	69.5
University of Virginia	273	211	77.3	162	135	83.3	51	35	68.6	60	41	68.3
Washington	399	305	76.4	222	179	80.6	89	60	67.4	88	66	75.0
Wayne	279	199	71.3	155	119	76.8	68	43	63.2	56	37	66.1
Western Reserve	302	244	80.8	178	158	88.8	66	42	63.6	44	29	65.9
Wisconsin	138	105	76.1	37	28	75.7	33	39	73.6	48	38	79.2
Woman's	125	81	64.8	79	52	65.8	29	17	58.6	17	12	70.6
Yale	212	173	81.6	122	104	85.2	46	32	69.6	44	37	84.1
Canadian colleges 6/	1,878	1,090	58.0	864	556	64.4	466	240	51.5	548	294	53.6
Alberta	101	65	64.4	38	24	63.2	29	18	62.1	34	21	61.8
Dalhousie	128	78	60.9	61	41	67.2	26	15	57.7	41	28	68.3
Laval	160	80	50.0	69	41	59.4	35	14	40.0	56	25	44.6
Manitoba	212	120	56.6	95	55	57.9	56	30	53.6	61	35	57.4
McGill	360	219	60.8	176	115	65.3	98	54	55.1	86	50	58.1
Montreal	203	99	48.8	111	66	59.5	39	18	46.2	53	15	28.3
Queen's	148	74	50.0	45	30	66.7	46	18	39.1	57	26	45.6
Toronto	453	282	62.3	219	150	68.5	104	57	54.8	130	75	57.7
Western Ontario	113	73	64.6	50	34	68.0	33	16	48.5	30	23	76.7

1/ Not included in studies for 1915-1930.

2/ Included with Rush for 1930.

3/ The first class graduated in 1934.

4/ The first class graduated in 1933.

5/ Activities suspended from 1920-1928.

6/ Not included in studies of 1915 and 1920 graduates.

their practice to a specialty than from general practitioners. However, the results appeared to warrant the general acceptance of the data reported in the questionnaires returned as representative of all 1935 and 1940 graduates. The tables are, therefore, based solely on the returned questionnaires.

Attention is called to the fact that various influences have been operating during recent years which may affect physicians graduating since 1940, and alter in some ways the trends described in this report. It is hoped that within the next few years conditions may warrant similar studies of the 1945 and 1950 graduates.

In this report no effort has been made to discuss all implications of the data presented. It is hoped that the tables will be useful to persons with a variety of interests in the fields of medical education and practice.

Age at Graduation

The age at graduation for members of the various classes studied showed

decreases in the proportions at both extremes of the age groups—age 19-23 and age 34 and over (table 2). With an increase in the number of medical colleges requiring four years of premedical college training and almost all requiring at least three years before admission, it is not surprising that the proportion in the youngest age group has declined materially. The compensating increase appears mainly in the age group 24-28.

The ages of the 1935 and 1940 graduates were tabulated by single years, showing that the age group 24-28 was distributed as follows:

Age in years	Per cent of graduates	
	1935	1940
Total, 24-28	78.6	82.2
24	14.9	14.0
25	22.4	25.2
26	20.9	24.3
27	13.6	12.1
28	6.8	6.6

Similar data on the age distribution of the graduates are not available from the earlier studies.

Geographic Distribution of Graduates

In recent years much discussion has

Table 2. Medical college graduates by age at graduation, 1915, 1920, 1925, 1930, 1935, and 1940 classes

Age group	Year of graduation					
	1915	1920	1925	1930	1935	1940
	Number of graduates					
All ages	1,834	1,947	3,230	3,710	3,426	3,828
19-23	420	346	362	772	231	190
24-28	1,117	1,288	2,196	2,330	2,694	3,146
29-33	212	252	541	360	410	419
34 and over	72	47	99	112	90	73
Not reported	13	14	32	86	1	0
	Percentage distribution					
All ages	100.0	100.0	100.0	100.0	100.0	100.0
19-23	22.9	17.7	11.2	20.8	6.8	5.0
24-28	60.9	66.1	68.0	62.8	78.6	82.2
29-33	11.5	12.9	16.7	9.7	12.0	10.9
34 and over	3.9	2.5	3.1	3.0	2.6	1.9
Not reported	0.8	0.8	1.0	2.3	1/	-

1/ Less than 0.1 percent.

Table 3. Graduates of American and Canadian medical colleges by country of practice, 1925, 1930, 1935, and 1940 classes

Country of practice	American colleges				Canadian colleges			
	1925	1930	1935	1940	1925	1930	1935	1940
Number of graduates								
Total 1/	2,948	3,427	3,171	3,513	282	272	237	294
Continental U. S.	2,918	3,363	3,127	3,461	110	66	58	73
Canada	1	14	2	1	168	194	174	215
U. S. territories	25	17	25	26	1	0	0	0
Other 2/	4	33	17	25	3	12	5	6
Percentage distribution								
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Continental U.S.	99.0	98.1	98.6	98.5	39.0	24.3	24.5	24.8
Canada	3/	0.4	0.1	3/	59.6	71.3	73.4	73.2
U. S. territories	0.8	0.5	0.8	0.7	0.4	-	-	-
Other	0.1	1.0	0.5	0.7	1.0	4.4	2.1	2.0

1/ Excludes the following number of graduates who are not practicing:

1930 - American colleges 9, Canadian colleges 2
 1935 - American colleges 15, Canadian colleges 3
 1940 - American colleges 21

2/ Includes those practicing in foreign countries and a few whose place of practice was not reported.

3/ Less than 0.1 percent.

centered on the need for the production of more physicians in the United States. It has been rather generally agreed that the physicians of the country are too inequitably distributed to serve the population as a whole most effectively. For this reason a study of the distribution of medical graduates by place of practice was considered worthwhile. Insofar as possible, an attempt also was made to analyze the various measurable factors influencing these distributions.

Country of Practice

Table 3 indicates the number and percentage of the graduates of American and Canadian medical colleges by country of practice. Practically all graduates of the American colleges and about one-fourth of the graduates of the Canadian colleges are practicing in the continental United States. Half of the 1935 graduates and about three-fifths of the

1940 graduates of Canadian colleges practicing in the United States lived in the United States before entering medical college. The largest group of these graduates were residents of New York State. The Canadian colleges as a group therefore are serving as the equivalent of another American medical college with a graduating class of approximately 75 students in the production of physicians for the United States.

Geographic Division and State in which Practicing

The distributions of the 1935 and 1940 graduates practicing in the United States by geographic division and state of practice as compared with the population distribution and per capita income are shown in table 4. The divisions were arranged in descending order of the average per capita income of their residents. Although other factors are involved, it appears that divisions and states

Table 4. Total medical college graduates and graduates in private practice, by division and state of practice, compared with distribution of 1950 population, and per capita income, 1935 and 1940 classes combined

Division and state of practice	Number of graduates		Percentage distribution			Per capita income 1950 2/
	Total 1/	In private practice	Graduates		Population 1950	
			Total	In private practice		
United States	6,278	5,422	100.0	100.0	100.0	\$1,436
Middle Atlantic	1,512	1,332	24.0	24.6	20.0	1,727
New York	825	709	13.1	13.1	9.8	1,864
New Jersey	214	199	3.4	3.7	3.2	1,689
Pennsylvania	473	424	7.5	7.8	6.9	1,523
Pacific	851	731	13.6	13.5	9.6	1,710
Washington	113	94	1.8	1.8	1.6	1,642
Oregon	86	77	1.4	1.4	1.0	1,523
California	650	560	10.4	10.3	7.0	1,751
East North Central	1,171	1,000	18.7	18.4	20.2	1,603
Ohio	320	285	5.1	5.3	5.3	1,522
Indiana	148	126	2.4	2.3	2.6	1,451
Illinois	347	287	5.5	5.3	5.8	1,752
Michigan	233	196	3.7	3.6	4.2	1,583
Wisconsin	123	106	2.0	1.9	2.3	1,431
New England	468	377	7.5	7.0	6.2	1,558
Maine	31	30	0.5	0.6	0.6	1,161
New Hampshire	30	27	0.5	0.5	0.4	1,282
Vermont	21	19	0.3	0.4	0.3	1,184
Massachusetts	228	175	3.6	3.2	3.1	1,600
Rhode Island	22	20	0.4	0.4	0.5	1,351
Connecticut	136	106	2.2	1.9	1.3	1,766
West North Central	497	430	7.9	7.9	9.3	1,387
Minnesota	118	106	1.9	1.9	2.0	1,332
Iowa	100	80	1.6	1.5	1.7	1,417
Missouri	138	123	2.2	2.2	2.6	1,401
North Dakota	18	16	0.3	0.3	0.4	1,298
South Dakota	11	9	0.2	0.2	0.4	1,308
Nebraska	51	43	0.8	0.8	0.9	1,467
Kansas	61	53	0.9	1.0	1.3	1,338
Mountain	243	213	3.9	3.9	3.4	1,362
Montana	24	24	0.4	0.4	0.4	1,605
Idaho	22	21	0.3	0.4	0.4	1,267
Wyoming	15	15	0.2	0.3	0.2	1,509
Colorado	74	59	1.2	1.1	0.9	1,592
New Mexico	26	22	0.4	0.4	0.5	1,109
Arizona	41	35	0.7	0.6	0.5	1,240
Utah	36	32	0.6	0.6	0.5	1,271
Nevada	5	5	0.1	0.1	0.1	1,875
West South Central	460	418	7.3	7.7	9.6	1,345
Arkansas	53	46	0.8	0.9	1.3	1,225
Louisiana	88	67	1.4	1.2	1.8	1,045
Oklahoma	69	67	1.1	1.2	1.5	1,070
Texas	250	238	4.0	4.4	5.1	1,278
South Atlantic	804	678	12.8	12.5	14.1	1,139
Delaware	20	16	0.3	0.3	0.2	1,909
Maryland	103	82	1.6	1.5	1.6	1,547
District of Columbia	86	73	1.4	1.3	0.5	1,986
Virginia	117	101	1.9	1.9	2.2	1,158
West Virginia	65	51	1.0	0.9	1.3	1,049
North Carolina	128	97	2.0	1.8	2.7	951
South Carolina	50	47	0.8	0.9	1.4	831
Georgia	94	78	1.5	1.4	2.3	969
Florida	141	133	2.3	2.5	1.8	1,210
East South Central	272	243	4.3	4.5	7.6	867
Kentucky	74	66	1.2	1.2	2.0	911
Tennessee	92	78	1.4	1.5	2.2	962
Alabama	62	59	1.0	1.1	2.0	836
Mississippi	44	40	0.7	0.7	1.4	698

1/ Excludes 441 graduates in Federal service in the United States, not allocated to state of practice, 39 graduates not practicing, and 496 practicing outside the United States or whose place of practice was not reported.

2/ From the 1950 study of the Department of Commerce, published in Survey of Current Business.

with high per capita incomes attract a somewhat higher percentage of graduates than would be expected on the basis of population distribution alone. For example, New York, the District of Columbia and California all have a considerably higher percentage of recent graduates than of population. In contrast, North Carolina, South Carolina, Georgia, Tennessee, Alabama, and Mississippi have lower percentages of recent graduates than they would seem to warrant on a population basis. Depending somewhat on their per capita incomes, states without medical colleges apparently fare just as well in the distribution of graduates as do the states which have one or more such colleges.

Size of Community Practice

The primary objective of most campaigns to increase the number of physicians in this country has been to provide physicians for smaller communities and rural areas. To this end, medical colleges have been urged to persuade larger numbers of their graduates to locate in the smaller communities. Similarly, various methods have been tried in an effort to attract larger numbers of young

graduates to the more sparsely settled areas.

The data from this study therefore were analyzed to determine the distribution of the graduates according to size of community of practice. This analysis was restricted to those in the private practice of medicine in order to eliminate graduates serving full time on the staffs of hospitals and institutions located in the rural areas. Table 5 shows the distribution of the 1930, 1935 and 1940 graduates on this basis.

Some decrease can be noted between the 1930 and 1940 classes in the proportion of graduates practicing in cities of 500,000 or more, and a compensating increase occurred in the proportion in cities of 100,000-500,000. As a result, there was little change for the group of cities of 100,000 or more as a whole. A marked increase appears in the percentage practicing in communities of 10,000-100,000 population. A sharp decrease has occurred, however, in the percentage practicing in communities of less than 5,000; this group declined from 26 per cent of the graduates in 1930 to 13 per cent in 1940.

The percentage distribution of the total population according to size of

Table 5. Graduates of American medical colleges in private practice by size of community of practice, 1930, 1935, and 1940 classes

Size of community of practice ^{1/}	Number of graduates			Percentage distribution			
	1930	1935	1940	1930	1935	1940	1950 population
Total	2,666	2,640	2,742	100.0	100.0	100.0	100.0
500,000 and over	768	675	663	28.8	25.6	24.2	17.5
100,000-499,999	429	549	589	16.1	20.8	21.5	11.7
50,000-99,999	181	255	299	6.8	9.7	10.9	5.9
25,000-49,999	151	246	328	5.6	9.3	11.9	5.7
10,000-24,999	245	305	299	9.2	11.5	10.9	7.9
5,000-9,999	200	178	181	7.5	6.7	6.6	5.4
2,500-4,999	682	133	125	25.6	5.0	4.6	4.3
Under 2,500	268	268	236	10.2	10.2	8.6	41.6
Unknown	10	31	22	0.4	1.2	0.8	-

^{1/} Communities are classified by 1930 population for 1930 graduates and by 1950 population for 1935 and 1940 graduates.

Table 6. Percentage distribution of graduates of individual American medical colleges in private practice, by size of community of practice, 1935 and 1940 classes combined

Medical college	Total	Size of community of practice					
		500,000 and over	100,000-499,999	50,000-99,999	10,000-49,999	2,500-9,999	Under 2,500
Total	100.0 ^{1/}	24.9	21.1	10.3	21.9	11.5	9.4
Albany	100.0	10.3	25.6	25.6	25.6	5.1	7.7
Arkansas	100.0	17.3	19.2	1.9	34.6	17.3	9.6
Baylor	100.0	12.8	35.9	11.5	21.8	15.4	2.6
Boston	100.0	22.0	16.0	14.0	32.0	4.0	12.0
Buffalo	100.0	46.9	7.8	3.1	18.8	4.7	17.2
California	100.0	44.8	25.9	10.3	8.6	5.2	3.4
Chicago Medical School	100.0	35.2	-	9.3	27.8	14.8	9.2
Chicago University	100.0	48.0	16.0	4.0	26.0	4.0	-
Cincinnati	100.0	33.3	18.1	12.5	23.6	9.7	2.8
Colorado	100.0	1.9	37.7	7.5	30.2	13.2	9.4
Columbia	100.0	38.9	9.3	4.6	24.1	13.0	9.3
Cornell	100.0	36.8	15.8	13.2	21.1	2.6	9.2
Creighton	100.0	20.8	25.0	8.3	18.1	18.1	8.3
Duke	100.0	7.1	41.1	14.3	30.4	1.8	5.4
Emory	100.0	3.2	30.6	8.1	21.0	29.0	8.1
Georgetown	100.0	32.6	21.7	12.0	14.1	8.7	7.6
George Washington	100.0	54.2	10.2	6.8	16.9	3.4	8.5
Georgia	100.0	3.1	25.0	18.8	15.6	31.3	6.2
Hahnemann	100.0	25.7	8.8	15.0	20.4	13.3	15.0
Harvard	100.0	25.6	26.8	9.1	29.3	3.7	4.9
Howard	100.0	50.0	11.1	5.6	22.2	5.6	-
Illinois	100.0	23.8	17.7	14.6	20.8	13.8	9.2
Indiana	100.0	1.8	39.1	8.2	21.6	18.2	10.9
Iowa	100.0	3.7	12.2	20.7	19.5	24.4	19.5
Jefferson	100.0	26.5	17.1	13.5	19.4	12.4	10.0
Johns Hopkins	100.0	39.6	25.4	3.2	27.0	1.6	1.6
Kansas	100.0	8.0	28.0	8.0	29.3	13.3	13.3
Long Island	100.0	41.4	10.3	6.9	18.4	9.2	13.8
Louisiana	100.0	23.3	30.0	-	16.7	18.3	11.7
Louisville	100.0	9.7	30.1	6.5	19.4	17.2	16.1
Loyola	100.0	50.0	17.1	8.5	11.0	4.9	6.1
Marquette	100.0	28.6	14.3	4.8	31.7	7.9	12.7
Maryland	100.0	45.4	10.2	9.3	13.9	10.2	8.3
Medical Evangelists	100.0	13.8	20.7	15.0	15.0	12.6	21.8
McHARRY	100.0	51.9	22.2	11.1	3.7	3.7	7.4
Michigan	100.0	30.4	21.7	13.9	16.5	13.0	3.5
Minnesota	100.0	20.5	13.7	5.1	26.5	16.2	17.9
Nebraska	100.0	7.2	21.7	9.6	32.5	14.5	13.3
New York Medical College	100.0	47.5	18.0	8.2	11.5	4.9	6.6
New York University	100.0	60.8	10.8	4.7	13.5	5.4	4.7
Northwestern	100.0	18.9	19.5	10.1	34.0	9.4	8.2
Ohio	100.0	11.1	34.6	6.2	23.5	14.8	9.9
Oklahoma	100.0	5.0	35.0	5.0	43.3	8.3	3.3
Oregon	100.0	3.8	36.5	-	32.7	23.1	3.8
Pennsylvania	100.0	27.5	19.4	14.4	16.2	9.4	10.0
Pittsburgh	100.0	34.4	9.8	8.2	13.1	23.0	11.5
Rochester	100.0	7.3	30.9	7.3	36.4	5.5	12.7
Rush	100.0	25.2	14.3	12.9	24.5	10.9	10.2
St. Louis	100.0	29.3	24.2	9.1	23.2	7.1	6.1
South Carolina	100.0	8.2	6.1	32.7	24.5	24.5	4.1
Southern California	100.0	35.6	17.8	20.0	17.8	2.2	4.5
Stanford	100.0	28.6	17.4	14.3	28.6	3.2	6.3
Syracuse	100.0	14.5	33.3	7.2	17.4	10.1	17.4
Temple	100.0	29.0	20.6	5.6	16.8	16.8	9.3
Tennessee	100.0	3.3	35.9	4.3	22.8	14.1	19.6
Texas	100.0	17.2	30.3	17.2	12.1	17.2	6.1
Tufts	100.0	19.2	29.8	18.3	16.3	10.6	4.8
Tulane	100.0	21.2	27.1	7.6	22.0	15.3	5.9
Vanderbilt	100.0	8.9	39.3	7.1	17.9	16.1	10.7
Vermont	100.0	13.2	10.5	5.3	22.1	18.4	31.6
Medical College of Virginia	100.0	7.4	25.0	13.2	26.5	11.8	13.2
University of Virginia	100.0	12.5	25.0	14.3	26.8	10.7	8.9
Washington	100.0	33.0	14.6	6.8	27.2	11.6	4.9
Wayne	100.0	47.6	12.7	15.9	15.9	4.8	3.2
Western Reserve	100.0	33.8	17.6	14.9	20.3	6.8	6.8
Wisconsin	100.0	21.9	9.4	17.2	21.9	10.9	15.6
Woman's	100.0	31.8	13.6	9.1	9.1	9.1	4.5
Yale	100.0	11.9	30.9	4.8	35.7	2.4	9.5

^{1/} Includes 53 graduates for whom size of community of practice was unknown. The total number of graduates of each school in private practice is shown in table 27.

community is shown in the last column of table 5. Comparisons of the proportions of physicians and of population in the various size groups should be interpreted with caution since many geographic and other factors influence the availability and utilization of physicians' services.

Marked differences appear among the colleges in the proportion of their graduates practicing in communities of various size (table 6), partly perhaps because of the uneven distribution of communities of various size throughout the United States in relation to the location of the medical colleges. One medical college had no 1935 or 1940 graduates in private practice in cities with 100,000-500,000 population. Two had none in cities of 50,000-100,000, and two had none in communities with less than 2,500 inhabitants. California, the University of Chicago, Duke, Harvard, Howard, Johns Hopkins, Southern California, Stanford and Wayne had less than 10 per cent of their 1935 and 1940 graduates practicing in communities of less than 10,000 population. On the other hand, Emory, Georgia, Iowa and Vermont had more than 35 per cent of their graduates of those years in communities of less than 10,000.

Factors Affecting Place of Practice

Various factors which might influence the distribution of the graduates were analyzed. As has been pointed out in the discussion of table 4, per capita income appears to have some effect on the location of graduates. Other measurable factors which appeared to be of some influence are: location of the medical college and the nature of its support; the place of residence of the graduate before entering medical college, and the place in which the graduate served his

internship. Each of these factors deserves some discussion.

Location of medical college—Table 7 shows the number and percentage of graduates of the publicly and the privately-supported medical colleges practicing in the state in which they received their medical degree. The proportion of graduates who are practicing in the same state as the medical college attended appears to be decreasing—moderately for the public colleges and sharply for the private colleges.

The table also indicates the number and percentage of 1935 and 1940 graduates and the percentage of 1930 graduates of individual colleges in private practice in the same state as the college attended. More than 75 per cent of both the 1935 and 1940 graduates in private practice from the following colleges were practicing in the state in which they attended medical college: Baylor, Buffalo, University of California, Chicago Medical School, Pittsburgh, Southern California, Stanford and Texas; this proportion contrasts sharply with the less than 25 per cent of the graduates of Creighton, Georgetown, Howard, Johns Hopkins, Rush and Tulane practicing in the same state. Because of the interest in regional plans at certain medical colleges, the number and proportion of graduates in private practice practicing in another state in the same division as the medical college attended also are presented (table 8).

The data were analyzed further to show for each college the number and per cent of graduates practicing in the same city as the medical college attended (table 9). Although other factors are undoubtedly involved, the graduates of most of the colleges located in or adjacent to the larger cities tend to show a higher

Table 7. Graduates of individual public and private American medical colleges in private practice in the same state as the medical college attended, 1930, 1935, and 1940 classes

Form of medical college control and medical college	Graduates practicing in same state as medical college attended				
	Number		Percent		
	1935	1940	1930	1935	1940
Total	1,344	1,261	55.7	50.9	46.0
Public	519	544	56.3	55.0	53.4
Arkansas	6	16	50.0 1/	33.3 1/	47.1
California	24	29	93.5	85.7	96.7
Cincinnati	19	19	66.7	54.3	51.4
Colorado	11	14	50.0 1/	44.0	50.0
Georgia	12	9	56.2 1/	63.2 1/	69.2 1/
Illinois	26	35	70.6	45.9	50.7
Indiana	44	39	80.0	83.0	68.4
Iowa	19	29	56.7	52.8	63.0
Kansas	19	17	28.6	52.8	43.6
Louisiana	8	17	2/	34.8 1/	45.9
Louisville	18	16	40.7	43.9	30.8
Maryland	21	19	26.4	36.8	37.3
Michigan	23	31	53.5	43.4	50.0
Minnesota	29	29	65.3	54.7	45.3
Nebraska	8	16	51.2	18.2	41.0
Ohio	37	27	91.9	84.1	73.0
Oklahoma	17	19	55.2	53.1	67.9
Oregon	19	11	45.8 1/	79.2 1/	39.3
South Carolina	14	17	81.0 1/	66.7 1/	60.7
Tennessee	24	20	43.2	53.3	42.6
Texas	41	51	84.6	95.3	91.1
Vermont	5	7	36.8 1/	29.4 1/	33.3 1/
Medical College of Virginia	15	9	11.5	38.5	31.0
University of Virginia	14	13	17.2	50.0	46.4
Wayne	27	22	94.3	77.1	78.6
Wisconsin	17	13	80.0 1/	51.5	41.9
Private	825	717	55.4	46.6	41.6
Albany	18	12	78.6 1/	50.0 1/	63.2 1/
Baylor	33	29	84.2	80.5	78.4
Boston	12	9	47.1	46.2	37.5 1/
Buffalo	31	22	94.3	86.1	78.6
Chicago Medical School	23	21	2/	85.2	77.8
Chicago University	1	4	2/	9.1 1/	28.6 1/
Columbia	27	23	73.0	49.1	43.4
Cornell	18	18	66.7	46.2	48.6
Creighton	9	3	17.9	25.0	8.3
Duke	5	10	2/	20.0	32.3
Emory	15	14	38.5	46.9	46.7
Georgetown	4	10	10.3	9.8	19.6
George Washington	11	7	12.0	29.7	31.8 1/
Hahnemann	27	28	54.8	55.1	43.8
Harvard	24	21	50.0	27.9	26.9
Howard	1	4	-	5.3 1/	23.5 1/
Jefferson	46	36	56.5	54.1	42.4
Johns Hopkins	4	5	12.1	15.4	13.5
Long Island	33	17	89.9	67.3	44.7
Loyola	25	15	58.5	61.0	36.6
Marquette	15	11	88.1	46.9	35.5
Medical Evangelists	27	23	50.0	64.3	51.1
Meharry	0	0	8.7 1/	-	-
New York Medical College	23	11	93.6	69.7	39.3
New York University	54	37	80.0	71.1	51.4
Northwestern	22	21	30.4	28.6	25.6
Pennsylvania	45	37	44.2	57.0	45.7
Pittsburgh	30	21	93.8	83.3	84.0
Rochester	15	12	50.0 1/	55.6	42.9
Rush	17	10	35.8	20.2	15.9
St. Louis	14	7	33.3	28.0	14.3
Southern California	17	27	2/	94.4 1/	100.0
Stanford	23	32	91.4	96.7	97.0
Syracuse	26	24	80.6	76.5	68.6
Temple	28	29	74.2	63.6	46.0
Tufts	30	26	58.2	57.7	50.0
Tulane	11	17	33.3	22.4	24.6
Vanderbilt	6	11	22.2 1/	27.3 1/	32.4
Washington	22	17	38.1	43.1	32.7
Western Reserve	24	25	73.0	64.9	67.6
Woman's	4	4	57.1 1/	30.8 1/	44.4 1/
Yale	5	7	34.6	25.0 1/	31.8 1/

1/ Percent based on less than 25. 2/ Not included in study for this year.

Table 8. Graduates of individual American medical colleges in private practice in another state in same division as the medical college attended, 1935 and 1940 classes

Medical college	Graduates practicing in another state in same division as medical college attended			
	Number		Percent	
	1935	1940	1935	1940
Total	333	372	12.6	13.6
Albany	0	2	-	10.5 1/2
Arkansas	2	4	11.1 1/2	11.8
Baylor	0	1	-	2.7
Boston	5	11	19.2	45.8 1/2
Buffalo	1	1	2.8	3.6
California	1	0	3.6	-
Chicago Medical School	0	0	-	-
Chicago University	5	0	45.5 1/2	-
Cincinnati	4	4	11.4	10.8
Colorado	2	1	8.0	3.6
Columbia	11	9	20.0	17.0
Cornell	4	7	10.3	18.9
Creighton	6	7	16.7	19.4
Duke	6	7	24.0	22.6
Emory	8	11	25.0	36.7
Georgetown	8	4	19.5	7.8
George Washington	4	4	10.8	18.2 1/2
Georgia	5	3	26.3 1/2	23.1 1/2
Hahnemann	9	18	18.4	28.1
Harvard	12	14	14.0	17.9
Howard	4	4	21.1 1/2	23.5 1/2
Illinois	5	11	8.2	15.9
Indiana	2	7	3.8	12.3
Iowa	0	3	-	6.5
Jefferson	13	9	15.3	10.6
Johns Hopkins	4	9	15.4	24.3
Kansas	2	7	5.6	17.9
Long Island	9	6	18.4	15.8
Louisiana	4	3	17.4 1/2	8.1
Louisville	2	3	4.9	5.8
Loyola	8	11	19.5	26.8
Marquette	7	3	21.9	9.7
Maryland	10	9	17.5	17.6
Medical Evangelists	6	5	14.3	11.1
McHARRY	0	1	-	5.9 1/2
Michigan	5	5	9.4	8.1
Minnesota	2	3	3.8	4.7
Nebraska	9	4	20.5	10.3
New York Medical College	3	5	9.1	17.9
New York University	10	10	13.2	13.9
Northwestern	10	12	13.0	14.6
Ohio	1	2	2.3	5.4
Oklahoma	3	2	9.4	7.1
Oregon	3	16	12.5 1/2	57.1
Pennsylvania	8	9	10.1	11.1
Pittsburgh	1	1	2.8	4.0
Rochester	5	0	18.5	-
Rush	13	6	15.5	9.5
St. Louis	0	4	-	8.2
South Carolina	5	4	23.8	14.3
Southern California	0	0	-	-
Stanford	2	1	6.7	3.0
Syracuse	2	0	5.9	-
Temple	7	9	15.9	14.3
Tennessee	6	12	35.6	25.5
Texas	1	2	2.3	3.6
Tufts	11	15	21.2	28.8
Tulane	8	9	16.3	13.0
Vanderbilt	7	9	31.8 1/2	26.5
Vermont	4	6	23.5 1/2	28.6 1/2
Medical College of Virginia	14	9	35.9	31.0
University of Virginia	6	6	21.4	21.4
Washington	3	2	5.9	3.8
Wayne	1	0	2.9	-
Western Reserve	3	3	8.1	8.1
Wisconsin	4	2	12.1	6.5
Woman's	5	3	38.5 1/2	33.3 1/2
Yale	2	2	10.0 1/2	9.1 1/2

1/2 Percent based on less than 25.

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Table 9. Graduates of individual American and Canadian medical colleges in private practice in the same city as the medical college attended, 1930, 1935, and 1940 classes

Medical college	Graduates practicing in same city ^{1/} as medical college attended				
	Number		Percent		
	1935	1940	1930	1935	1940
All colleges	551	536	20.9	19.5	18.1
American colleges	514	485	20.6	19.5	17.7
Albany	2	4	-	10.0 ^{2/}	21.1 ^{2/}
Arkansas	2	4	-	11.1 ^{2/}	11.8
Baylor	3	3	-	12.5	8.1
Boston	3	4	14.7	11.5	16.7 ^{2/}
Buffalo	11	13	45.7	30.6	46.4
California	6	10	35.5	21.4	33.3
Chicago Medical School	8	8	3	29.6	29.6
Chicago University	1	3	-	9.1 ^{2/}	21.4 ^{2/}
Cincinnati	10	9	34.4	26.6	24.3
Colorado	8	7	-	32.0	25.0
Columbia	19	16	46.0	34.5	30.2
Cornell	12	9	53.1	30.8	24.3
Creighton	5	3	7.2	13.9	8.3
Duke	0	0	-	-	-
Emory	6	7	5.6	18.8	23.3
Georgetown	4	10	10.3	9.8	19.6
George Washington	11	7	12.0	29.7	11.8 ^{2/}
Georgia	1	1	6.2 ^{2/}	5.3 ^{2/}	7.7 ^{2/}
Hahnemann	6	9	16.7	12.2	14.1
Harvard	8	10	22.2	9.3	12.8
Howard	1	4	-	5.3 ^{2/}	23.5 ^{2/}
Illinois	7	10	-	11.5	14.5
Indiana	12	12	-	22.6	21.1
Iowa	17	13	1.7	-	4.3
Jefferson	17	13	10.6	20.0	15.3
Johns Hopkins	4	5	12.1	15.4	13.5
Kansas	4	2	-	11.1	5.1
Long Island	24	9	82.6	49.0	23.7
Louisiana	1	6	-	4.3 ^{2/}	16.2
Louisville	6	12	7.4	14.6	15.4
Loyola	16	12	45.3	39.0	29.3
Marquette	8	5	47.6	25.0	16.1
Maryland	18	15	18.9	31.6	29.4
Medical Evangelists	7	3	-	16.7	6.7
McHARRY	0	0	4.3 ^{2/}	-	-
Michigan	0	1	3.0	-	1.6
Minnesota	11	10	31.9	20.8	15.6
Nebraska	3	4	7.3	6.8	10.3
New York Medical College	17	7	76.6	51.5	25.0
New York University	45	35	76.5	59.2	48.6
Northwestern	7	8	18.8	9.1	9.8
Ohio	9	10	18.9	20.5	27.0
Oklahoma	4	8	-	12.5	20.6
Oregon	9	2	-	37.5 ^{2/}	7.1
Pennsylvania	19	15	22.1	24.1	18.5
Pittsburgh	13	7	29.2	36.1	20.0
Rochester	5	4	16.7 ^{2/}	18.5	14.3
Rush	8	6	25.4	9.5	9.5
St. Louis	6	7	56.5	12.0	14.3
South Carolina	2	1	9.5 ^{2/}	9.5 ^{2/}	3.6
Southern California	6	9	3	33.3 ^{2/}	33.3
Stanford	4	10	-	13.3	30.3
Syracuse	6	5	16.7	17.6	14.3
Temple	9	14	25.8	20.5	22.2
Tennessee	9	7	4.5	20.0	14.9
Texas	1	3	3.6	2.3	5.4
Tufts	9	5	14.9	17.3	9.6
Tulane	5	11	9.3	10.2	15.9
Vanderbilt	1	7	5.6 ^{2/}	11.8 ^{2/}	20.6
Vermont	2	1	5.3 ^{2/}	11.8 ^{2/}	4.8 ^{2/}
Medical College of Virginia	6	5	7.7	15.4	17.2
University of Virginia	2	1	3.4	7.1	3.6
Washington	15	10	14.3	29.4	19.2
Wayne	15	13	42.9	42.9	46.4
Western Reserve	8	12	21.6	21.6	32.4
Woman's	3	3	25.0	9.1	9.7
Yale	1	1	42.9 ^{2/}	5.0 ^{2/}	-
Canadian colleges	27	51	25.1	20.7	23.3
Alberta	7	4	15.4 ^{2/}	43.8 ^{2/}	21.1 ^{2/}
Dalhousie	0	1	36.4 ^{2/}	18.2 ^{2/}	5.9 ^{2/}
Laval	2	4	25.0 ^{2/}	16.7 ^{2/}	20.0 ^{2/}
McGill	4	11	20.0 ^{2/}	16.7 ^{2/}	42.3
Montreal	4	9	15.4	9.5	26.5
Queen's	8	8	52.4 ^{2/}	57.1 ^{2/}	66.7 ^{2/}
Toronto	1	1	-	10.0 ^{2/}	5.6 ^{2/}
Western Ontario	9	12	32.5	23.1	22.6
Western Ontario	2	1	33.3 ^{2/}	15.4 ^{2/}	5.0 ^{2/}

^{1/} Medical colleges located in suburbs of large cities have been considered part of the larger city.
 Both St. Paul and Minneapolis have been considered "same city" for the University of Minnesota.

^{2/} Percent based on less than 25.

^{3/} Not included in study for this year.

percentage practicing in the same city. At the same time, it should be pointed out that the number and percentage of the graduates of the New York City medical colleges practicing in New York City has decreased markedly between the 1930 and 1940 classes.

Prior residence—Table 10 indicates for each college the percentage of 1935 and 1940 graduates who before entering medical college lived in the same city, same state or same division as the college attended. It is interesting that the overall percentage of graduates of publicly and of privately-supported colleges whose prior residence was in the same city as that in which the medical college is located was identical. Contrasts appear, however, in the proportion for individual colleges. More than 90 per cent of the graduates of 10 publicly-supported and of 3 privately-supported colleges lived in the same state as the college attended. On the other hand, less than 25 per cent of the graduates of nine privately supported colleges had their prior residence in the same state.

These differences are explained by a variety of factors, the most prominent of which is the requirement of state residence for admission to certain of the state-supported medical colleges. Most of these colleges today are much more rigid in this respect than they were when the graduates of 1935 and 1940 entered college. Other factors are the sponsorship of the college and certain preferences or restrictions in admission other than that of geographic residence. Other colleges have been considered "national colleges" and show a relatively small proportion of graduates who had their prior residence in the same state as the college attended. Examples of such colleges and their

percentages of state residents are Johns Hopkins (17 per cent), Harvard (25 per cent) and Yale (28 per cent).

The percentages of 1935 and 1940 graduates in private practice from individual colleges who are practicing in the same city, the same state or the same division as that in which they lived before entering medical college are of interest (table 11). The variation from college to college is enormous. Of the graduates of the College of Medical Evangelists in private practice, only 8 per cent are practicing in the city of their prior residence while 50 per cent or more of the graduates of Buffalo, California, Georgetown, Loyola, New York Medical College, New York University and Montreal are practicing in the city in which they lived when they entered medical college.

The proportion practicing in the same state as that of prior residence ranges from 31 per cent for graduates of Nebraska to 93 per cent for graduates of Southern California and 96 per cent for graduates of Montreal.

The individual colleges show considerable variation in the proportion of their 1935 and 1940 graduates who lived in communities of specified size before admission to medical college (table 12). For 10 American colleges located in large cities, more than 50 per cent of their graduates in these years had their prior residence in communities of 500,000 or more population. Six of these colleges show less than 10 per cent of their graduates from communities of less than 10,000. One privately and six publicly-supported colleges show more than 40 per cent from communities of less than 10,000 population.

The number and percentage of graduates in private practice whose

Table 10. Percentage of graduates of individual public and private American medical colleges whose prior residence was in the same city, same state, and same division as the medical college, 1935 and 1940 classes combined

Form of medical college control and medical college	Percentage of graduates whose prior residence ^{1/} was:		
	Same city as college	Same state as college	Same division as college
Total	25.7	60.5	71.5
Public	25.7	78.1	85.4
Arkansas	27.5	73.9	79.7
California	39.0	96.1	96.1
Cincinnati	37.5	77.3	85.2
Colorado	46.5	77.5	84.5
Georgia	13.5	97.3	97.3
Illinois	44.9	94.9	94.9
Indiana	17.4	92.4	93.2
Iowa	6.0	100.0	100.0
Kansas	9.1	81.8	95.5
Louisiana	12.1	51.5	57.6
Louisville	15.8	43.9	48.2
Maryland	32.6	48.5	63.6
Michigan	8.1	66.9	76.9
Minnesota	45.9	87.7	90.4
Nebraska	33.6	84.1	90.7
Ohio	26.7	96.2	96.2
Oklahoma	30.0	97.2	97.2
Oregon	26.5	72.1	95.6
South Carolina	10.7	85.7	89.3
Tennessee	14.2	57.5	76.1
Texas	6.9	98.3	98.3
Vermont	17.3	63.5	78.8
Medical College of Virginia	22.3	40.4	72.3
University of Virginia	5.3	68.4	81.6
Wayne	85.0	92.5	96.2
Wisconsin	18.2	90.9	96.1
Private	25.7	50.3	63.4
Albany	17.4	82.6	89.1
Baylor	2.3	88.6	90.9
Boston	18.5	64.6	80.0
Buffalo	53.7	91.5	95.1
Chicago Medical School	41.3	49.2	63.5
Chicago University	31.0	45.2	64.3
Columbia	35.7	49.0	70.6
Cornell	25.5	51.0	75.5
Creighton	17.3	27.2	45.7
Duke	1.3	18.7	46.7
Emory	29.2	62.5	81.9
Georgetown	8.6	8.6	15.2
George Washington	30.0	30.0	42.5
Hebrew	17.8	51.1	75.6
Harvard	10.1	24.8	35.3
Howard	10.3	10.3	28.2
Jefferson	14.0	53.9	66.8
Johns Hopkins	13.7	16.8	34.7
Long Island	61.9	80.6	90.7
Loyola	46.9	58.2	78.6
Marquette	35.1	57.1	68.8
Medical Evangelists	10.7	44.3	53.3
McHerry	-	-	3.3
New York Medical College	50.0	70.6	82.4
New York University	70.0	82.2	93.3
Northwestern	19.6	33.7	49.2
Pennsylvania	25.0	55.5	66.5
Pittsburgh	51.4	97.1	97.1
Rochester	20.5	67.9	73.1
Rush	14.5	22.0	37.6
St. Louis	15.2	16.8	20.0
Southern California	63.8	94.8	96.6
Stanford	19.7	78.9	85.5
Syracuse	31.6	85.5	90.8
Temple	23.1	65.4	79.2
Tufts	24.4	74.8	92.9
Tulane	15.6	22.4	34.0
Vanderbilt	22.1	33.8	70.1
Washington	27.0	50.0	54.0
Western Reserve	41.9	77.9	79.1
Woman's	6.9	34.5	72.4
Yale	7.2	27.5	46.4

^{1/} Place of residence at the time of entering medical college.

Trends in Medical Practice

Table 11. Percentage of graduates of individual American and Canadian medical colleges in private practice whose prior residence was in the same city, same state, and same division as they are practicing in, 1935 and 1940 classes combined

Medical college	Percentage of graduates whose prior residence was:		
	Same city as practice	Same state ^{1/} as practice	Same division ^{2/} as practice
All colleges	31.5	54.1	76.0
American colleges	31.4	54.2	74.1
Albany	43.6	88.1	97.2
Arkansas	32.7	55.8	69.2
Baylor	35.9	76.9	80.8
Boston	28.0	64.0	82.0
Buffalo	50.0	89.9	85.9
California	51.7	89.7	91.4
Chicago Medical School	29.6	53.7	68.5
Chicago University	28.0	44.0	60.0
Cincinnati	36.1	62.5	70.8
Colorado	28.3	47.2	58.5
Columbia	35.2	63.0	72.2
Cornell	31.6	53.9	65.8
Creighton	30.6	61.1	75.0
Duke	35.7	62.5	66.1
Duquesne	40.3	61.3	80.6
George Washington	51.1	71.7	76.1
Georgia	45.8	66.1	81.4
Georgia	21.9	62.5	87.5
Hahnemann	38.9	76.1	86.7
Harvard	27.4	56.7	67.7
Howard	30.6	52.8	63.9
Illinois	26.9	50.8	63.8
Indiana	33.6	75.5	82.7
Iowa	15.9	58.5	62.2
Jefferson	37.6	67.1	77.1
Johns Hopkins	31.7	41.3	49.2
Kansas	16.0	42.7	57.3
Long Island	39.1	71.3	79.3
Louisiana	36.7	58.3	73.3
Louisville	31.2	63.4	72.0
Loyola	54.9	74.4	81.7
Marquette	34.9	71.4	81.0
Maryland	46.3	68.5	81.5
Medical Evangelists	8.0	39.1	50.6
McHarr	25.9	40.7	48.1
Michigan	23.5	54.8	60.0
Minnesota	16.2	56.4	59.0
Nebraska	12.0	31.3	47.0
New York Medical College	55.7	80.3	81.6
New York University	54.1	72.3	78.4
Northwestern	29.6	52.2	58.5
Ohio	39.5	76.5	80.2
Oklahoma	25.0	61.7	70.0
Oregon	32.7	65.4	68.5
Pennsylvania	41.2	64.4	72.5
Pittsburgh	44.3	83.6	86.9
Rochester	38.2	67.3	76.4
Rush	34.7	55.8	65.3
St. Louis	41.4	68.7	74.7
South Carolina	40.8	71.4	85.7
Southern California	40.0	93.3	93.3
Stanford	33.1	82.5	85.7
Syracuse	43.5	76.3	78.1
Temple	41.1	72.9	80.4
Tennessee	41.3	70.7	77.2
Texas	35.4	90.9	93.9
Tufts	31.7	65.4	79.8
Tulane	34.7	71.2	77.1
Vanderbilt	32.1	59.1	69.6
Vermont	18.4	44.7	71.1
Medical College of Virginia	27.9	63.2	76.5
University of Virginia	35.7	57.1	78.6
Washington	31.1	59.2	65.0
Wayne	44.4	74.6	77.8
Western Reserve	33.8	66.2	73.0
Wisconsin	18.8	51.6	57.8
Woman's	31.8 ^{3/}	62.2 ^{3/}	77.3 ^{3/}
Yale	23.8	54.8	59.5
Canadian colleges	35.7	66.1	86.2
Alberta	34.3	57.1	88.6
Dalhousie	37.0	55.6	81.5
Laval	32.3	74.2	80.6
Manitoba	36.0	52.0	90.0
McGill	36.8	57.9	85.5
Montreal	69.2	96.2	100.0
Queen's	25.0	82.1	96.4
Toronto	30.4	70.7	82.6
Western Ontario	33.3	66.7	78.8

^{1/} For Canada, province should be substituted for state.^{2/} The Canadian provinces have not been grouped into divisions. The figures in this column for the Canadian colleges refer to graduates practicing in Canada who lived in Canada before entering medical college.^{3/} Percent based on less than 25.

Table 12. Percentage distribution of graduates of individual American and Canadian medical colleges by size of community of prior residence, 1935 and 1940 classes combined

Medical college	Total	Size of community of prior residence					
		500,000 and over	100,000-499,999	50,000-99,999	10,000-49,999	2,500-9,999	Under 2,500
All colleges	100.0 ^{1/}	27.2	16.9	8.0	17.6	11.0	12.4
American colleges	100.0	27.2	16.9	7.8	15.0	11.0	12.4
Albany	100.0	2.2	21.7	30.4	21.7	8.7	13.0
Arkansas	100.0	7.2	30.4	3.0	20.3	17.4	20.3
Baylor	100.0	4.5	36.3	10.2	18.2	14.8	6.8
Boston	100.0	27.7	18.5	18.5	18.5	3.1	7.7
Buffalo	100.0	54.9	8.6	4.9	14.6	2.4	12.2
California	100.0	51.9	22.1	3.9	6.5	6.5	1.3
Chicago Medical School	100.0	66.7	3.2	6.3	7.9	4.8	6.3
Chicago University	100.0	38.1	16.7	7.1	16.7	7.1	4.8
Cincinnati	100.0	43.2	9.1	3.4	15.9	10.2	11.4
Colorado	100.0	1.4	56.4	7.0	12.7	9.9	5.6
Columbia	100.0	39.1	11.2	8.4	23.8	6.3	4.9
Cornell	100.0	32.7	10.2	8.2	25.5	9.2	7.1
Craigton	100.0	27.2	29.6	4.9	11.1	6.2	17.3
Duke	100.0	10.7	25.3	12.0	22.7	9.3	14.7
Emory	100.0	1.4	37.5	5.5	15.3	27.6	11.1
Georgetown	100.0	34.3	15.2	13.3	12.4	12.4	6.7
George Washington	100.0	50.0	15.0	2.5	5.0	5.0	13.7
Georgia	100.0	-	18.9	24.4	13.5	8.1	18.9
Mahanesmann	100.0	26.9	8.9	8.9	21.5	13.3	8.1
Harvard	100.0	22.9	14.7	8.7	24.3	15.2	6.9
Howard	100.0	48.7	7.7	12.8	15.4	5.1	-
Illinois	100.0	46.0	1.7	9.7	14.8	10.2	12.5
Indiana	100.0	1.5	25.0	6.1	20.4	17.4	22.7
Iowa	100.0	-	4.0	13.0	20.0	25.0	29.0
Jefferson	100.0	18.6	16.1	8.8	18.1	14.0	15.0
Johns Hopkins	100.0	26.4	17.9	4.2	24.2	11.6	8.4
Kansas	100.0	-	28.4	9.1	26.1	12.5	19.3
Long Island	100.0	64.8	7.4	2.8	7.4	2.8	7.4
Louisiana	100.0	22.7	19.7	1.5	16.7	12.1	15.2
Louisville	100.0	10.5	24.6	5.3	14.9	14.9	23.7
Loyola	100.0	62.3	7.1	8.2	7.1	4.1	3.1
Maryland	100.0	45.4	5.2	2.6	20.8	6.5	13.0
Maryland	100.0	43.2	6.8	3.8	17.4	8.3	14.4
Medical Evangelists	100.0	17.2	4.9	4.9	24.6	9.9	23.8
Meharry	100.0	36.7	16.7	6.7	13.3	6.7	10.0
Michigan	100.0	17.5	13.8	10.0	30.0	13.1	5.0
Minnesota	100.0	34.9	16.4	-	5.5	18.5	17.1
Nebraska	100.0	-	34.6	11.2	14.0	9.3	25.2
New York Medical College	100.0	57.4	13.2	4.4	11.8	4.4	2.9
New York University	100.0	69.4	7.8	4.4	5.6	1.7	1.1
Northwestern	100.0	22.6	14.1	10.1	24.6	10.6	12.1
Ohio	100.0	9.5	40.0	2.9	24.7	6.7	9.5
Oklahoma	100.0	1.4	31.0	-	16.9	22.5	22.5
Oregon	100.0	-	41.2	-	41.2	8.8	5.9
Pennsylvania	100.0	27.5	16.5	11.5	20.5	9.0	10.5
Pittsburgh	100.0	51.4	1.4	8.6	11.4	15.7	8.6
Rochester	100.0	16.7	29.5	9.0	21.8	9.0	12.8
Rush	100.0	25.4	13.3	11.0	20.8	5.8	15.0
St. Louis	100.0	39.2	15.2	5.6	16.0	9.6	8.0
South Carolina	100.0	1.8	-	26.6	21.4	17.9	23.2
Southern California	100.0	63.8	8.6	13.8	5.2	5.2	1.7
Stanford	100.0	29.0	21.1	3.9	26.3	3.9	6.6
Syracuse	100.0	10.5	38.2	5.3	15.8	7.9	15.8
Temple	100.0	29.2	13.1	5.4	17.7	15.4	14.6
Tennessee	100.0	3.5	26.5	0.9	19.5	20.4	22.1
Texas	100.0	7.8	20.7	18.1	14.7	17.2	17.2
Tufts	100.0	24.4	18.1	11.8	23.6	7.1	7.1
Tulane	100.0	21.1	12.9	5.5	17.7	17.0	18.4
Vanderbilt	100.0	3.9	33.7	2.6	15.6	24.7	16.9
Vermont	100.0	9.6	3.8	3.8	30.8	13.5	36.6
Medical College of Virginia	100.0	10.6	28.7	11.7	9.6	7.5	24.5
University of Virginia	100.0	6.6	18.4	4.0	27.6	11.8	23.7
Washington	100.0	31.0	12.7	8.7	22.2	9.5	8.7
Wayne	100.0	86.8	1.2	1.2	3.8	-	1.2
Western Reserve	100.0	44.2	12.8	5.8	17.5	8.1	8.1
Wisconsin	100.0	23.4	-	28.5	13.0	18.2	13.0
Woman's	100.0	34.5	6.9	6.9	24.2	20.7	3.4
Yale	100.0	13.0	31.9	4.3	23.2	14.5	8.7
Canadian colleges	100.0	27.9	16.7	9.9	14.8	10.3	12.5
Alberta	100.0	-	2.4	56.1	9.8	12.2	12.2
Dalhousie	100.0	18.9	-	16.2	10.8	8.1	21.6
Laval	100.0	5.1	46.2	-	15.4	5.1	17.9
Manitoba	100.0	-	58.4	6.2	7.7	6.2	18.4
McGill	100.0	36.5	12.5	4.8	11.5	13.5	12.5
Montreal	100.0	63.6	-	-	15.2	15.2	6.1
Queen's	100.0	11.4	13.6	-	31.8	18.2	13.6
Toronto	100.0	52.3	9.1	2.2	15.9	8.3	5.3
Western Ontario	100.0	17.9	2.6	30.8	20.5	7.7	17.9

^{1/} Includes 489 graduates for whom size of place of prior residence was unknown.

Trends in Medical Practice

Table 13. Graduates of individual public and private American medical colleges in private practice in the United States who are practicing in communities of less than 10,000 and those whose prior residence was in communities of less than 10,000, 1935 and 1940 classes combined

Form of medical college control and medical college	Number of graduates			Percent practicing in communities under 10,000	Percent with prior residence in communities under 10,000
	Total	Practicing in communities under 10,000	Prior residence in communities under 10,000		
Total	5,231 ^{1/}	1,094	1,268	20.9	24.2
Public	1,919	496	603	25.3	31.4
Arkansas	32	14	19	26.9	36.3
California	56	5	5	8.9	8.9
Cincinnati	71	8	16	11.3	22.5
Colorado	52	11	8	21.2	15.4
Georgia	32	12	9	37.5	28.1
Illinois	126	30	30	23.4	23.4
Indiana	106	32	45	29.6	41.7
Iowa	82	36	45	43.9	54.9
Kansas	73	20	25	27.4	34.2
Louisiana	56	15	18	26.8	32.1
Louisville	90	31	36	34.4	40.0
Maryland	105	20	26	19.0	24.8
Michigan	113	18	24	15.9	21.2
Minnesota	116	40	43	34.5	37.1
Nebraska	81	22	25	27.2	30.9
Ohio	79	19	13	24.0	16.5
Oklahoma	60	7	26	11.7	46.7
Oregon	52	14	7	26.9	13.5
South Carolina	48	14	22	29.2	45.8
Tennessee	88	29	39	33.0	44.3
Texas	97	23	33	23.7	34.0
Vermont	38	19	23	50.0	60.5
Medical College of Virginia	66	15	23	22.7	34.8
University of Virginia	52	10	20	19.2	38.5
Wayne	62	5	1	8.1	1.6
Wisconsin	62	17	20	27.4	32.3
Private	3,314	608	665	18.3	20.1
Albany	39	5	8	12.8	20.5
Baylor	13	13	18	17.1	23.7
Boston	49	8	5	16.3	10.2
Buffalo	63	14	8	22.2	12.7
Chicago Medical School	52	13	6	25.0	11.5
Chicago University	25	1	2	4.0	8.0
Columbia	109	24	10	22.9	9.5
Cornell	74	9	12	12.2	16.2
Creighton	71	19	16	26.8	22.5
Duke	55	4	13	7.3	23.6
Emory	61	23	24	37.7	39.3
Georgetown	86	14	17	15.9	19.3
George Washington	57	7	10	12.3	17.5
Hahnemann	110	32	27	29.1	24.5
Harvard	157	14	37	8.9	23.6
Howard	34	2	1	5.9	2.9
Jefferson	162	36	47	22.2	29.0
Johns Hopkins	61	2	10	3.3	16.4
Long Island	87	20	11	23.0	12.6
Loyola	80	9	7	11.2	8.8
Marquette	62	12	13	19.4	21.0
Medical Evangelists	79	30	22	38.0	27.8
McHARRY	27	3	5	11.1	18.5
New York Medical College	60	7	4	11.7	6.7
New York University	145	14	3	9.7	2.1
Northwestern	153	24	36	15.7	23.5
Pennsylvania	154	31	31	20.1	20.1
Pittsburgh	60	21	16	35.0	26.7
Rochester	55	10	10	18.2	18.2
Rush	142	31	34	21.8	23.9
St. Louis	94	12	16	12.8	19.1
Southern California	43	3	2	7.0	4.7
Stanford	61	6	6	9.8	9.8
Syracuse	66	18	17	27.3	25.8
Temple	103	26	29	27.2	28.2
Tufts	102	16	15	15.7	14.7
Tulane	114	25	45	21.9	39.5
Vanderbilt	55	14	24	25.5	43.6
Washington	99	17	20	17.2	20.2
Western Reserve	72	9	11	12.5	15.3
Woman's	22	3	4	13.6	18.2
Yale	40	5	11	12.5	27.5

^{1/} Excludes 95 graduates practicing in the United States whose place of prior residence was outside the United States or not reported.

prior residence was in communities of less than 10,000 population and the extent to which graduates in private practice are located in communities of that size appear in table 13. Approximately one-fourth of the graduates of all colleges now in private practice had their prior residence in communities of less than 10,000 while approximately one-fifth of the graduates in private practice are located in communities of that size. The percentages in each instance are higher for the publicly-supported colleges than for the privately-supported colleges. Since the privately-supported colleges have a larger number of graduates than do the publicly-supported colleges, the actual number of graduates practicing in and formerly residing in small communities is in each instance greater for the privately-supported colleges. Although many individuals appear in both the prior residence and practice groups, the computations are completely independent.

It is of interest that five of the publicly-supported and 16 of the privately-supported colleges have a larger percentage of graduates prac-

ticing in communities of less than 10,000 than they have percentages whose prior residence was in communities in this size group. Of the colleges showing the opposite relationships, Harvard, Johns Hopkins and Oklahoma are the outstanding examples.

The percentage distribution of 1935 and 1940 graduates of American medical colleges in private practice in communities of various size as related to the size of community of prior residence (table 14) reveals a rather striking fact. The last two columns of table 14 indicate that approximately 50 per cent of those practicing in communities of less than 10,000 population had their prior residence in communities in the same size group.

The same data appear from a somewhat different viewpoint in table 15, showing the percentage distribution according to community of practice of graduates whose prior residence was in communities of a specified size. It is noteworthy that 28 per cent of those whose prior residence was in communities of under 2,500 population are practicing in this

Table 14. Percentage distribution of graduates of American medical colleges in private practice in various size communities, by size of community of prior residence, 1935 and 1940 classes combined

Size of community of prior residence	All sizes	Size of community of practice					
		500,000 and over	100,000-499,999	50,000-99,999	10,000-49,999	2,500-9,999	Under 2,500
Number of graduates	5,382 ^{1/}	1,338	1,138	554	1,178	617	504
All sizes	100.0	100.0	100.0	100.0	100.0	100.0	100.0
500,000 and over	26.8	64.6	12.1	16.4	15.6	13.3	15.3
100,000-499,999	16.9	6.8	46.8	7.4	10.5	10.5	10.3
50,000-99,999	7.9	4.3	5.0	35.0	4.9	4.4	6.0
10,000-49,999	18.0	9.0	12.7	14.1	39.1	14.6	14.5
2,500-9,999	11.2	4.5	8.0	9.7	10.1	33.9	12.7
Under 2,500	12.5	4.4	8.8	11.4	13.7	16.7	36.9

^{1/} Includes 53 graduates for whom size of place of practice was unknown and in addition, 328 graduates for whom place of prior residence was unknown.

Trends in Medical Practice

Table 15. Percentage distribution of graduates of American medical colleges in private practice in the United States whose prior residence was in various size communities by size of community of practice, 1935 and 1940 graduates combined

Size of community of prior residence	Number of graduates	All sizes	Size of community of practice					
			500,000 and over	100,000-499,999	50,000-99,999	10,000-49,999	2,500-9,999	Under 2,500
All sizes	5,382 1/	100.0	24.9	21.1	10.3	21.9	11.5	9.4
500,000 and over	1,443	100.0	59.9	9.6	6.3	12.7	5.7	5.3
100,000-499,999	910	100.0	10.0	58.5	4.5	13.6	7.1	5.7
50,000-99,999	425	100.0	13.4	13.4	45.7	13.6	6.4	7.1
10,000-49,999	969	100.0	12.5	14.9	8.0	47.5	9.3	7.5
2,500-9,999	603	100.0	10.1	15.1	9.0	19.7	34.6	10.6
Under 2,500	674	100.0	8.8	15.0	9.3	23.9	15.3	27.6

1/ Includes 53 graduates for whom size of place of practice was unknown and in addition, 326 graduates for whom place of prior residence was unknown.

Table 16. Medical college graduates with various relations between place of prior residence and place of practice, by relation between location of medical college and place of practice, 1935 and 1940 classes combined

Relation between places of prior residence and practice	Relation between location of medical college and place of practice					
	Total	Same city	Other city in same state	Other state in same division	Other division	Other country
Number of graduates						
Total	6,756 1/	1,306	1,894	919	2,408	210
Same city	2,180	881	572	219	465	43
Other city in same state	1,939	240	1,104	186	379	30
Other state in same division	678	56	74	412	122	14
Other division	1,711	107	107	88	1,397	12
Other country	130	3	5	4	9	109
Not specified	118 1/	19	32	10	36	2
Percentage distribution						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Same city	32.3	67.5	30.2	23.8	19.3	20.5
Other city in same state	28.7	18.4	58.3	20.2	15.7	14.3
Other state in same division	10.0	4.3	3.9	44.8	5.1	6.7
Other division	25.3	8.2	5.6	9.6	58.0	5.7
Other country	1.9	0.2	0.3	0.4	0.4	51.9
Not specified	1.7	1.5	1.7	1.1	1.5	1.0
Total	100.0	19.3	28.0	13.6	35.6	3.1
Same city	100.0	40.4	26.2	10.0	21.3	2.0
Other city in same state	100.0	12.4	56.9	9.6	19.5	1.5
Other state in same division	100.0	8.3	10.9	60.8	18.0	2.1
Other division	100.0	6.3	6.3	5.1	81.6	0.7
Other country	100.0	2.3	3.8	3.1	6.9	83.8
Not specified	100.0	16.1	27.1	8.5	30.5	1.7

1/ Excludes 441 graduates employed by the Federal government, 18 by the Canadian government, and 39 not in practice. Includes 19 graduates whose place of practice was not reported.

group of smallest communities which, in contrast, have attracted only 5½ per cent of the graduates whose prior residence was in communities of over 100,000. When communities of less than 10,000 are considered as a group, it appears that 45 per cent of the graduates whose prior residence was in communities of 2,500-10,000 and 43 of those whose prior residence was in communities of less than 2,500 are practicing in communities of less than 10,000.

In an effort to evaluate the relative effect of the location of the medical college as compared with prior residence on place of practice, table 16 was developed. It shows the distribution of the 1935 and 1940 medical college graduates according to the relation between location of medical college and place of practice and the relation between place of prior residence and place of practice. The results of this tabulation appear to indicate that prior residence is a much more potent factor than the

location of the medical college in determining the place of practice of the graduate in medicine.

Relative importance of various factors—Although the place of internship was not requested in the questionnaire, slightly more than 1,000 graduates volunteered this information, affording an opportunity to study the relationship between place of internship and place of practice. Since it was thought that a combination of factors such as place of internship, location of medical college and place of prior residence might influence place of practice, table 17 was devised to show the relative importance of these factors. This table appears to indicate that prior residence either alone or in combination with location of the medical college or place of internship is the most important of these factors in determining the place of practice.

While the present study emphasizes the importance of prior residence in determining the place of practice of

Table 17. Percentage distribution of graduates of American medical colleges by relationship between place of practice and places of internship, medical college, and prior residence, 1935 and 1940 classes combined

Relationship	Same city		Same state	
	1935	1940	1935	1940
Number of graduates	518	483	518	483
Total	100.0	100.0	100.0	100.0
Practicing in same place as internship	22.2	22.2	49.6	43.7
Medical college and prior residence also in same place ^{1/}	8.7	9.7	33.4	25.9
Medical college also in same place ^{1/}	4.4	4.1	5.0	3.9
Prior residence also in same place ^{1/}	4.4	3.3	6.8	6.6
Internship alone in same place ^{1/}	4.6	5.0	4.4	7.2
Practicing in same place as medical college	18.5	18.6	49.8	41.8
Internship and prior residence also in same place	8.7	9.7	33.4	25.9
Internship also in same place	4.4	4.1	5.0	3.9
Prior residence also in same place	3.1	3.1	9.7	10.8
Medical college alone in same place ^{1/}	2.3	1.7	1.7	1.2
Practicing in same place as prior residence	29.5	31.9	61.4	54.7
Internship and medical college also in same place	8.7	9.7	33.4	25.9
Internship also in same place	4.4	3.3	6.8	6.6
Medical college also in same place	3.1	3.1	9.7	10.8
Prior residence alone in same place ^{1/}	13.3	15.7	11.6	11.4
Practicing in a different place ^{1/}	59.1	57.3	27.4	32.9

^{1/} These 8 items add to 100 per cent.

Table 18. Medical college graduates by type of practice, 1915, 1920, 1925, 1930, 1935, and 1940 classes

Type of practice	Year of graduation					
	1915	1920	1925	1930	1935	1940
Number of graduates						
Total	1,834	1,947	3,230	3,710	3,426	3,826
General practice	412	464	811	1,168	857	895
Special attention to specialty	653	786	1,307	1,405	623	458
Limited to specialty	751	682	1,097	1,126	1,887	2,422
Not practicing	18	15	15	11	18	21
Not specified	0	0	0	0	41	32
Percentage distribution						
Total	100.0	100.0	100.0	100.0	100.0	100.0
General practice	22.5	23.8	25.1	31.5	25.0	23.4
Special attention to specialty	35.6	40.4	40.5	37.9	18.2	12.0
Limited to specialty	40.9	35.0	34.0	30.4	55.1	63.3
Not practicing	1.0	0.8	0.5	0.3	0.5	0.5
Not specified	-	-	-	-	1.2	0.8

physicians, this finding should in no way minimize the possible significance of other factors which may be operative in either augmenting or counteracting otherwise natural trends. For example, the great variation among individual medical colleges suggests that certain factors in the undergraduate program or the environment in which it is conducted may have a definite influence on the distribution of their graduates. Medical colleges which have specific objectives in the distribution of their graduates should give careful attention to what might be referred to as natural and stimulated trends.

Many other factors are, of course, involved in determining the place of practice of the graduates of our medical colleges. In general, these factors are so complicated, varied and personal that it would be hopeless to attempt to measure them in such a study as this. Nevertheless, the more readily measurable factors included in this study are apparently of sufficient influence in determining the distribution of physicians in this country to deserve the thoughtful

attention of medical educators. The data here presented suggest that, other things being equal, prior residence is the most potent single factor in determining the ultimate place of practice of the graduates of our medical colleges.

Form of Practice

Type of Practice—The field of medicine is so broad that it offers opportunities for a wide variety of practice. Nevertheless, practical considerations dictated restriction of the analysis to the customary classifications: general practice, general practice with special attention to a specialty and limitation to a specialty. Table 18 accordingly shows the number and percentage of the graduates of the various years studied in accordance with such classification.

In comparing the data for the graduates of the various classes, it should be noted that the time elapsed between graduation and the date of the study amounted to 11 years for the graduates of 1915; six years for the graduates of 1920, 1925 and 1930; 15 years for the graduates of 1935

and 10 years for the graduates of 1940. Nevertheless, the data in table 18 may be interpreted as indicating a markedly increasing trend toward limitation to a specialty. The proportion of graduates in general practice, however, has remained relatively unchanged as the studies have progressed. The high percentage of the 1930 graduates in general practice may possibly be explained by the fact that the class was graduated in a period of economic depression.

On the other hand, a marked decrease in the percentage in general practice with special attention to a specialty can be noted. Whether this decline has resulted from the development of recognized courses of training in preparation for the practice of the specialties and the development of the specialty boards is difficult to determine. In considering the percentage of graduates available for general practice, we must combine the group designated "general prac-

tice" with the group designated "general practice with special attention to a specialty." If this combination is made, it becomes evident that 69 per cent of the 1930 graduates were available for general practice as compared with 35 per cent of the 1940 graduates. Among the graduates who have not limited their practice to a specialty, 304 of those graduated in 1935 and 329 of those graduated in 1940 stated that they plan such limitation. If they carry out their plans, 64 per cent of the 1935 graduates and 72 per cent of the 1940 graduates will eventually limit their practice to a specialty.

Prior residence—Since it was found that prior residence was a factor in determining the size of community of practice, it was considered desirable to study size of community of prior residence in relationship to type of practice. A distribution of the graduates on this basis is shown in table 19. This table shows a tendency

Table 19. Graduates of American medical colleges in private practice in the United States by size of community of prior residence ^{1/} and type of practice, 1935 and 1940 classes

Year of graduation and size of community of prior residence	Number of graduates			Percentage distribution			
	General practice	Special attention	Limited specialty	Total	General practice	Special attention	Limited specialty
1935:							
Total	762	514	1,332	100.0	29.2	19.7	51.1
500,000 and over	194	135	430	100.0	25.6	17.8	56.6
100,000-499,999	117	69	267	100.0	25.8	15.2	59.0
50,000-99,999	48	31	125	100.0	23.5	15.2	61.3
25,000-49,999	39	44	98	100.0	21.6	24.1	54.1
10,000-24,999	66	43	102	100.0	31.3	20.4	48.3
5,000-9,999	52	40	69	100.0	32.3	24.8	42.9
2,500-4,999	46	38	42	100.0	36.5	30.2	33.3
Under 2,500	140	81	121	100.0	40.9	23.7	35.4
Unknown	60	33	78	-	-	-	-
1940:							
Total	740	365	1,615	100.0	27.2	13.4	59.4
500,000 and over	159	80	438	100.0	23.5	11.9	64.7
100,000-499,999	124	43	285	100.0	27.4	9.5	63.1
50,000-99,999	50	22	147	100.0	22.8	10.1	67.1
25,000-49,999	75	33	166	100.0	27.4	12.0	60.6
10,000-24,999	86	40	174	100.0	28.7	13.3	58.0
5,000-9,999	49	30	85	100.0	29.9	18.3	51.8
2,500-4,999	54	23	70	100.0	36.7	15.7	47.6
Under 2,500	106	67	155	100.0	32.3	20.4	47.3
Unknown	37	27	95	-	-	-	-

^{1/} Communities are classified by 1950 population.

toward an inverse relationship between the size of community of prior residence and the percentage of general practitioners and of those in general practice with special attention to a specialty. On the other hand, there appears to be a direct relationship between the size of community of prior residence and the percentage of graduates who are limiting their practice to a specialty.

Distribution by size of community of practice—For the purpose of studying the distribution of the graduates in various types of practice in communities of various size, table 20 was developed. The table indicates that more than half of those in general practice are located in communities of less than 25,000 inhabitants, whereas only 15 per cent of the graduates whose practice is limited to a specialty are located in communities of this size. For the 1935 graduates limited to a specialty, an additional 11 per cent and for the

1940 graduates an additional 14 per cent are located in communities of 25,000-50,000 population.

Table 21 indicates the number and percentage of 1925, 1930, 1935 and 1940 graduates practicing in each community of 500,000 or more population who have limited their practice to a specialty. As would be expected from the general trend, increasing proportions of the graduates practicing in these metropolitan areas are limiting their practice to a specialty. Boston shows the highest percentage of specialists for the 1925 and 1935 graduates; that city is exceeded only by Baltimore and Montreal for the 1930 graduates and by Buffalo for the 1940 graduates.

In general the trend toward specialization for the graduates of the individual colleges has been the same as that for the group as a whole (table 22). An analysis of the percentage of graduates of each of the years studied who had limited their

Table 20. Graduates of American medical colleges in private practice in the United States by size of community of practice ^{1/} and type of practice, 1935 and 1940 classes

Year of graduation and size of community of practice	Number of graduates			Percentage distribution		
	General practice	Special attention	Limited specialty	General practice	Special attention	Limited specialty
1935:						
Total	762	514	1,332	100.0	100.0	100.0
500,000 and over	142	88	445	18.6	17.1	33.4
100,000-499,999	93	73	383	12.2	14.2	28.8
50,000-99,999	57	40	157	7.5	7.8	11.8
25,000-49,999	45	50	151	5.9	9.7	11.3
10,000-24,999	100	84	120	13.1	16.3	9.0
5,000-9,999	70	64	44	9.2	12.5	3.3
2,500-4,999	79	48	6	10.4	9.3	0.5
Under 2,500	176	67	25	23.1	13.0	1.9
Unknown	0	0	1	-	-	0.1
1940:						
Total	740	365	1,615	100.0	100.0	100.0
500,000 and over	108	55	500	14.6	15.1	31.0
100,000-499,999	98	46	445	13.2	12.6	27.6
50,000-99,999	63	34	202	8.5	9.3	12.5
25,000-49,999	57	39	232	7.7	10.7	14.4
10,000-24,999	89	59	151	12.0	16.2	9.3
5,000-9,999	89	49	43	12.0	13.4	2.7
2,500-4,999	77	38	10	10.4	10.4	0.6
Under 2,500	159	45	32	21.5	12.3	2.0
Unknown	0	0	0	-	-	-

^{1/} Communities are classified by 1950 population.

Table 21. Medical college graduates practicing in individual cities of 500,000 1/ and more population who have limited practice to a specialty, 1925, 1930, 1935, and 1940 classes

City of practice	Year of graduation			
	1925	1930	1935	1940
Number of limited specialists practicing in specified city				
Total	409	380	575	742
Baltimore	24	31	28	28
Boston	41	35	32	51
Buffalo	7	5	10	20
Chicago	60	34	46	56
Cincinnati	-	-	14	16
Cleveland	13	19	26	28
Detroit	33	9	18	33
Houston	-	-	11	19
Los Angeles	27	22	46	58
Milwaukee	6	9	16	9
Minneapolis	-	-	12	10
Montreal	13	23	9	21
New Orleans	-	-	14	28
New York	100	106	148	175
Philadelphia	19	27	47	58
Pittsburgh	14	11	15	14
St. Louis	17	13	21	34
San Francisco	27	21	21	30
Toronto	8	15	9	20
Washington	-	-	32	34
Specialists as percentage of all graduates practicing in specified city				
Total	40.1	38.3	68.9	78.2
Baltimore	68.6	79.5	70.0	75.7
Boston	75.9	72.9	91.4	94.4
Buffalo	26.9	21.7 2/	58.8 2/	95.2 2/
Chicago	43.2	31.2	62.2	67.5
Cincinnati	-	-	82.4 2/	69.6 2/
Cleveland	40.6	46.3	74.3	82.4
Detroit	40.2	22.5	51.4	78.6
Houston	-	-	57.9 2/	82.6 2/
Los Angeles	51.9	48.9	83.6	76.3
Milwaukee	23.1	27.3	66.7 2/	69.2 2/
Minneapolis	-	-	80.0 2/	90.9 2/
Montreal	50.0	75.7	60.0 2/	75.0
New Orleans	-	-	82.4 2/	87.5
New York	29.4	27.0	63.0	80.6
Philadelphia	24.7	38.0	67.1	71.6
Pittsburgh	43.8	37.9	62.5 2/	77.8 2/
St. Louis	51.5	38.2	80.8	73.9
San Francisco	58.7	48.8	80.8	76.9
Toronto	40.0 2/	62.5 2/	60.0 2/	80.0
Washington	-	-	80.0	73.9

1/ American communities were classified by 1930 population for 1925 and 1930 graduates and by 1950 population for 1935 and 1940 graduates. Canadian communities were classified by 1931 population for the earlier years and 1941 population for the later years.

2/ Percent based on less than 25.

practice to a specialty at the time the studies were made indicates that the graduates of Johns Hopkins have the highest percentage of specialists for each of the classes studied. Moreover, graduates of 1935 and 1940 from that college show a markedly higher percentage of specialists than

do the graduates of the previous years. In contrast, eight of the medical colleges have less than 50 per cent of both their 1935 and 1940 graduates limiting their practice to a specialty.

Distribution of specialists by specialty—For comparative purposes it

Table 22. Percentage of graduates of individual American and Canadian medical colleges who have limited practice to a specialty, 1915, 1920, 1925, 1930, 1935, and 1940 classes

Medical college	Year of graduation					
	1915	1920	1925	1930	1935	1940
All colleges	40.9	35.0	34.0	30.4	55.1	63.3
American colleges	40.9	35.0	34.0	30.2	55.5	64.0
Albany	39.5	43.8 1/2	46.2 1/2	-	52.2 1/2	65.2 1/2
Arkansas	27.3 1/2	-	23.8 1/2	27.3 1/2	79.2 1/2	44.4
Baylor	30.0 1/2	30.4 1/2	32.0	26.8	43.5	47.6
Boston	50.0 1/2	37.5 1/2	27.8	23.7	61.8	74.2
Buffalo	35.7	23.8	18.4	17.5	52.2	63.3
California	60.0 1/2	46.7 1/2	26.6	27.0	54.1	77.5
Chicago Medical School	2/2	2/2	2/2	2/2	6.7	18.2
Chicago University	2/2	2/2	2/2	2/2	93.8 1/2	88.5
Cincinnati	2/2	2/2	42.1	46.8	76.2	65.2
Colorado	42.9	40.0	42.3	33.3	54.8	72.5
Columbia	46.8	36.8	35.1	30.1	69.8	77.5
Cornell	60.0 1/2	37.9	36.6	42.9	62.6	80.8
Creighton	20.0	20.0 1/2	32.1	25.7	43.9	40.0
Duke	2/2	2/2	2/2	2/2	75.9	82.6
Emory	33.7	37.5 1/2	32.7	19.4	42.9	64.9
Georgetown	47.6 1/2	22.2 1/2	34.5	16.4	37.8	56.7
George Washington	33.3 1/2	37.5 1/2	50.0	25.0	38.6	58.3
Georgia	25.0 1/2	46.2 1/2	21.1 1/2	32.0	61.9 1/2	50.0 1/2
Hahnemann	21.4 1/2	15.4	11.4	10.6	26.3	39.7
Harvard	65.6	55.4	69.8	55.5	79.6	86.1
Howard	9.1 1/2	15.4 1/2	-	6.8	10.0 1/2	10.5 1/2
Illinois	34.0	27.7	31.3	26.4	50.0	64.7
Indiana	46.2	29.0	32.9	25.0	45.9	56.3
Iowa	55.0 1/2	35.6	55.9	28.0	52.2	42.6
Jefferson	38.1	23.1	17.0	29.2	51.6	58.2
Johns Hopkins	76.7	76.2	71.7	75.8	97.6	88.7
Kansas	62.5	25.0 1/2	34.8 1/2	16.2	38.1	60.9
Long Island	28.8	14.5	12.3	7.0	55.9	61.2
Louisiana	2/2	2/2	2/2	2/2	58.3 1/2	50.0
Louisville	30.8	12.5 1/2	23.5	25.4	48.0	62.5
Loyola	2/2	2/2	23.3	13.6	39.6	62.0
Marquette	25.0 1/2	54.5 1/2	6.9	14.3	29.7	42.5
Maryland	36.7	39.5	22.6	29.0	53.0	69.7
Medical Evangelists	33.3 1/2	8.3 1/2	10.0	19.6	46.7	33.9
McHerry	-	-	-	4.0	23.1 1/2	23.5 1/2
Michigan	62.9	37.9	40.5	38.1	72.9	73.3
Minnesota	40.0	44.8	45.8	25.3	42.9	59.0
Nebraska	28.6 1/2	18.9	27.2	32.2	64.9	54.0
New York Medical College	2/2	2/2	6.2 1/2	13.5	47.2	50.0
New York University	39.4	15.3	21.6	17.0	64.3	75.0
Northwestern	44.8	36.5	35.0	34.4	61.2	77.2
Ohio	45.7	25.0 1/2	21.0	19.1	53.7	70.6
Oklahoma	30.8	36.4 1/2	47.4 1/2	17.1	54.1	50.0
Oregon	30.0 1/2	30.0 1/2	36.1	45.7	68.8	63.9
Pennsylvania	52.2	33.0	40.0	34.0	66.0	72.8
Pittsburgh	33.3 1/2	32.3	25.0	16.7	41.5	54.2
Rochester	2/2	2/2	2/2	63.6 1/2	51.4	80.5
Rush	47.9	48.2	38.0	39.8	55.3	59.5
St. Louis	54.5	22.4	24.6	24.4	42.4	57.6
South Carolina	42.1 1/2	25.0 1/2	46.2	44.4	53.8	50.0
Southern California	2/2	2/2	2/2	2/2	78.3 1/2	71.4
Stanford	35.7 1/2	56.2 1/2	68.2 1/2	46.8	66.7	65.0
Syracuse	41.7 1/2	41.2	22.9	17.9	37.8	59.0
Temple	2/2	2/2	13.8	11.4	60.8	58.2
Tennessee	39.5	63.6 1/2	40.4	35.0	49.0	54.8
Texas	51.7	36.2	50.0	26.1	40.8	62.7
Tufts	29.0	22.0	30.4	24.7	59.7	60.0
Tulane	33.9	37.9	36.4	34.3	64.1	67.5
Vanderbilt	42.4	33.3 1/2	40.0	57.6	58.8	79.1
Vermont	37.5	23.8 1/2	33.3 1/2	33.3 1/2	47.8 1/2	55.2
Medical College of Virginia	30.2	37.5 1/2	37.8	33.3	54.7	58.5
University of Virginia	65.0 1/2	73.1	53.3	59.1	54.3	57.8
Washington	32.1	48.6	50.0	41.4	70.0	75.8
Wayne	17.9	31.0	22.7 1/2	20.0	48.8	73.0
Western Reserve	43.3	29.5	37.5	40.4	61.9	72.7
Wisconsin	2/2	2/2	2/2	35.7	64.1	68.4
Woman's	27.8 1/2	26.6 1/2	17.6 1/2	-	52.9 1/2	75.0 1/2
Yale	71.4 1/2	31.2 1/2	48.6	69.8	65.6	86.5
Canadian colleges	2/2	2/2	34.0	33.8	49.6	55.1
Alberta	2/2	2/2	14.3 1/2	23.5 1/2	66.7 1/2	43.5 1/2
Dalhousie	2/2	2/2	15.4	60.0 1/2	50.0 1/2	50.0 1/2
Leval	2/2	2/2	35.3 1/2	25.0	50.0 1/2	40.0
Manitoba	2/2	2/2	26.7	25.0	50.0	51.4
McGill	2/2	2/2	39.0	39.3	50.0	70.0
Montreal	2/2	2/2	41.0	38.5	55.6 1/2	40.0 1/2
Queen's	2/2	2/2	33.3	33.3	53.8	53.8
Toronto	2/2	2/2	36.0	46.9	45.6	58.7
Western Ontario	2/2	2/2	12.5 1/2	11.1 1/2	43.8 1/2	60.9 1/2

1/ Percent based on less than 25. 2/ Not included in study for this year.

Table 23. Percentage distribution of medical college graduates who have limited practice to a specialty by specialty, 1915, 1920, 1925, 1930, 1935, and 1940 classes

Specialty	Total	Year of graduation					
		1915	1920	1925	1930	1935	1940
Number of specialists	7,965	715	682	1,097	1,126	1,687	2,422
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Eye, ear, nose, and throat	13.1	22.5	18.2	16.7	13.8	11.4	8.7
Internal medicine	19.9	18.1	18.3	17.3	17.8	19.0	23.7
Surgery	20.2	20.2	15.5	18.5	17.7	19.9	23.6
Pediatrics	7.5	6.0	11.3	9.9	7.5	6.5	6.7
Gynecology and obstetrics	8.2	5.9	6.7	6.8	5.6	9.7	10.0
Neuropsychiatry	7.5	4.7	6.6	5.8	12.5	8.3	6.4
Genito-urinary	3.9	5.3	5.9	4.7	4.1	3.4	2.9
Laboratory and radiology	8.7	7.6	8.6	8.4	10.8	7.9	8.7
Public health	3.2	3.5	3.2	4.6	4.1	3.9	1.5
Industrial (medicine and surgery)	1.0	2.4	1.3	1.4	0.7	1.1	0.5
Syphilology and dermatology	2.2	0.9	2.2	2.8	1.9	2.6	2.1
All other 1/	4.6	2.9	2.0	3.0	4.4	6.3	5.2

1/ Includes a few limited specialists who did not specify specialty.

Table 24. Medical college graduates who have limited practice to a specialty and graduates who are giving special attention to a specialty by specialty, 1935 and 1940 classes combined

Specialty	Limited specialty		Special attention	
	Number	Percent	Number	Percent
Total	4,309	100.0	1,081	100.0
Allergy	21	0.5	15	1.4
Anesthesiology	120	2.8	54	5.0
Bacteriology	6	0.1	0	-
Cardiovascular disease	17	0.4	34	3.1
Clinical pathology	8	0.2	1	0.1
Dermatology	101	2.3	12	1.1
Ear, nose, and throat	132	3.1	14	1.3
Endocrinology	3	0.1	1	0.1
Eye, ear, nose, and throat	110	2.6	4	0.4
Gastroenterology	11	0.3	9	0.8
Geriatrics	0	-	1	0.1
Gynecology	12	0.3	11	1.0
Gynecology & Obstetrics	385	8.9	112	10.4
Hospital administration	13	0.3	0	-
Industrial	31	0.7	37	3.4
Internal medicine	903	21.0	2	0.2
Neurological surgery	37	0.9	0	-
Neurology	9	0.2	2	0.2
Neuropsychiatry	100	2.3	2	0.2
Obstetrics	28	0.6	73	6.7
Oncology	6	0.1	2	0.2
Ophthalmology	183	4.2	9	0.8
Orthopedic surgery	197	4.6	24	2.2
Pathology	114	2.6	5	0.5
Pediatrics	284	6.6	72	6.7
Physical medicine & rehabilitation	14	0.3	4	0.4
Plastic surgery	22	0.5	0	-
Proctology	24	0.6	11	1.0
Psychiatry	203	4.7	14	1.3
Public health	109	2.5	0	-
Pulmonary disease	50	1.2	29	2.7
Radiology	229	5.3	7	0.6
Surgery	640	14.9	434	40.8
Thoracic surgery	27	0.6	0	-
Urology	135	3.2	9	0.8
Combinations of specialties	18	0.4	18	1.7
Unspecified	6	0.1	9	0.8

was considered desirable to classify the 1935 and 1940 graduates who had limited their practice to a specialty according to the fields of specialization used for the graduates of the earlier years studied. These data are shown in table 23. Probably the most outstanding trend is the progressive decrease in the percentage of graduates who have limited their practice to eye, ear, nose and throat. A slight increase appears in the percentage limiting their practice to internal medicine, surgery and gynecology and obstetrics.

It should be borne in mind that these percentages are based upon the total number of graduates of the various years who have limited their practice to a specialty. With the progressive increase in the number of graduates who have so limited their practice, any increase in the percentage limiting to a given specialty would represent an even more striking increase in the actual number of graduates limited to that specialty. On the other hand, a decrease in the percentage limiting to a given specialty might obscure an increase in

the actual number of graduates limited to that specialty. The tabulation actually represents the relative popularity of the various specialties with the graduates of the several years studied.

A more detailed classification than in table 23 appears in table 24, which shows the number and percentage distribution of 1935 and 1940 graduates who have limited their practice to a given specialty. This table includes data on the number and percentage of 1935 and 1940 graduates in general practice who are giving special attention to each specialty. As might be expected, the largest numbers are those giving special attention to surgery, gynecology and obstetrics, pediatrics and anesthesiology, with almost half of the total giving special attention to surgery.

Method of Practice

No material difference appears between the 1935 and 1940 graduates of the publicly and of the privately supported medical colleges in method of practice chosen (table 25). Both groups show an increase in the per-

Table 25. Percentage distribution of graduates of public and private medical colleges by method of practice, 1935 and 1940 classes

Method of practice	Year of graduation and form of medical college control			
	1935		1940	
	Public	Private	Public	Private
Number of graduates	1,269	2,157	1,459	2,369
Total	100.0	100.0	100.0	100.0
Individual	70.3	74.6	64.2	67.0
Group	10.8	8.3	12.5	10.7
State or local health department ..	2.2	1.4	1.0	1.3
Teaching and/or research	2.3	2.6	3.8	5.4
Federal government ^{1/}	2.9	3.1	3.4	3.0
Armed forces	3.2	2.7	3.4	3.7
Hospital administration	0.9	0.5	0.3	0.4
Other hospital, clinic	2.4	2.0	2.5	2.6
Industrial practice	1.6	1.6	1.2	0.9
Resident, graduate student	1.2	0.6	3.6	3.0
Other	1.4	1.9	3.1	1.6
Not in practice	0.6	0.5	0.8	0.4
Not specified	0.2	0.2	0.2	0.2

^{1/} Excludes Army, Navy, Air Force, and U. S. Public Health Service which are all included in armed forces.

centages in group practice and in teaching and research. In contrast, some decrease is evident in the percentages in individual practice.

The number and percentage of 1935 and 1940 graduates are shown also by method and type of practice (table 26). When we consider individual practice and group practice as representing the private practice of medicine, it is apparent that private practitioners represent more than 90 per cent of those in general practice and in general practice with special attention to a specialty. This proportion contrasts with 73 per cent in private practice for those limited to a specialty.

Similar data on the proportions in

private practice are presented for the graduates of 1930, 1935 and 1940 from individual colleges (table 27). Although the variations in the percentages are such that it is difficult to recognize any definite trends for the graduates of the different years, certain of the individual colleges show, for the graduates of all years, percentages that are consistently higher or lower than those for the group as a whole. For example, among Yale and Johns Hopkins graduates the percentages in private practice are much lower than the proportion for graduates of all colleges, while Georgetown, New York Medical College and Syracuse have consistently higher percentages.

Table 26. Medical college graduates with various methods of practice by type of practice, 1935 and 1940 classes combined

Method of practice	Total	Type of practice		
		General practice	Special attention	Limited specialty
Number of graduates				
All methods	7,235 ¹	1,752	1,081	4,399
Individual	5,027	1,514	849	2,664
Group	753	126	145	482
State or local health department	103	7	3	92
Teaching and/or research	270	12	5	254
Federal government ^{2/}	225	23	13	181
Armed forces	230	29	10	166
Hospital administration	35	0	5	24
Other hospital, clinic	173	8	7	158
Industrial practice	93	12	25	52
Resident, graduate student	152	0	1	149
Other	141	20	9	97
Not specified	13	1	1	10
Percentage distribution				
All methods	100.0	100.0	100.0	100.0
Individual	69.7	86.4	78.5	61.8
Group	10.4	7.2	13.4	11.2
State or local health department	1.4	0.4	0.3	2.1
Teaching and/or research	3.7	0.7	0.5	5.4
Federal government ^{2/}	3.1	1.3	1.2	4.2
Armed forces	3.2	1.6	1.7	3.8
Hospital administration	0.5	-	0.5	0.6
Other hospital, clinic	2.4	0.5	0.6	3.7
Industrial practice	1.3	0.7	2.3	1.2
Resident, graduate student	2.1	-	0.1	3.5
Other	2.0	1.1	0.8	2.3
Not specified	0.2	0.1	0.1	0.2

^{1/} Includes 73 graduates who did not specify type of practice but excludes 39 graduates who were not in practice.

^{2/} Excludes Army, Navy, Air Force, and U. S. Public Health Service which are all included in armed forces.

Table 27. Graduates of individual American and Canadian medical colleges in private practice, 1930, 1935, and 1940 classes

Medical college	Number of graduates in private practice			Percent of total graduates		
	1930	1935	1940	1930	1935	1940
All colleges	2,869	2,819	2,961	77.6	82.3	77.4
American colleges	2,666	2,640	2,742	77.8	82.9	77.6
Albany	14	20	19	100.0 1/	87.6	82.6 1/
Arkansas	10	18	34	45.5 1/	75.0 1/	75.6
Baylor	57	41	37	80.3	89.1	88.1
Boston	34	26	24	89.5	76.5	77.4
Buffalo	35	36	28	87.5	78.3	77.8
California	31	28	30	83.8	75.7	75.0
Chicago Medical School	2/	27	27	2/	90.0	81.8
Chicago University	2/	11	14	2/	68.8 1/	53.8
Cincinnati	32	35	37	74.4	83.3	80.4
Colorado	20	25	28	55.6	80.6	70.0
Columbia	63	55	53	86.3	87.3	66.2
Cornell	32	39	37	76.2	84.8	71.2
Creighton	2/	36	36	80.0	87.8	90.0
Duke	2/	25	31	2/	86.2	67.4
Emory	26	30	30	72.2	91.4	81.1
Georgetown	58	41	51	95.1	91.1	85.0
George Washington	25	37	22	78.1	84.1	61.1
Georgia	16	19	13	64.0	90.5 1/	81.2 1/
Rahnmann	42	49	64	89.4	86.0	82.1
Harvard	72	86	78	65.5	83.5	67.8
Howard	31	19	17	91.2	95.0 1/	89.5 1/
Illinois	68	61	69	74.7	82.4	67.6
Indiana	55	53	57	68.8	86.9	80.3
Iowa	60	36	46	73.2	78.3	85.2
Jefferson	85	85	85	80.2	89.5	86.7
Johns Hopkins	33	26	37	53.2	61.9	69.8
Kansas	28	36	39	75.7	85.7	84.8
Long Island	69	49	38	97.2	83.0	77.6
Louisiana	2/	23	37	2/	95.8 1/	88.1
Louisville	54	41	52	88.6	82.0	81.2
Loyola	53	41	41	89.8	85.4	82.0
Marquette	42	32	31	85.7	86.5	77.5
Maryland	53	27	51	85.5	86.4	77.3
Medical Evangelists	36	42	45	64.3	70.0	72.6
Meharry	23	10	17	92.0	76.9 1/	100.0 1/
Michigan	99	53	62	78.6	75.7	68.9
Minnesota	72	53	64	75.8	84.1	77.1
Nebraska	41	44	39	69.5	77.2	78.0
New York Medical College	47	33	28	90.4	91.7	87.5
New York University	85	76	72	96.6	90.5	75.0
Northwestern	69	77	82	74.2	78.6	81.2
Ohio	37	44	37	78.7	81.5	72.5
Oklahoma	29	32	28	70.7	86.5	82.4
Oregon	24	24	28	68.6	75.0	77.8
Pennsylvania	77	79	81	79.4	81.4	78.6
Pittsburgh	48	36	25	88.9	87.8	86.2
Rochester	18	27	28	81.8 1/	73.0	68.3
Rush	67	84	63	68.4	89.4	73.7
St. Louis	69	50	49	80.2	84.7	74.2
South Carolina	21	21	28	77.8	80.8	93.3
Southern California	2/	18	27	2/	78.3 1/	77.1
Stanford	35	30	33	81.4	83.3	82.5
Syracuse	36	34	35	92.3	91.9	89.7
Temple	31	44	63	88.6	86.3	79.7
Tennessee	44	45	47	73.3	86.2	75.8
Texas	26	43	56	81.3	87.8	83.6
Tufts	67	52	52	82.7	83.9	80.0
Tulane	54	49	69	77.1	76.6	83.1
Vanderbilt	18	22	34	54.5	64.7	79.1
Vermont	19	17	21	90.5 1/	73.9 1/	72.4
Medical College of Virginia	52	39	29	69.3	73.6	70.7
University of Virginia	29	28	28	65.9	80.0	68.3
Washington	42	51	52	72.4	85.0	78.8
Wayne	35	35	28	87.5	81.4	75.7
Western Reserve	37	37	37	71.2	88.1	84.1
Wisconsin	20	33	31	71.4	84.6	81.6
Woman's	7	13	9	70.0 1/	76.5 1/	75.0 1/
Yale	26	20	22	60.5	62.5	59.5
Canadian colleges	203	179	219	74.6	74.6	74.5
Alberta	13	15	19	76.5 1/	88.9 1/	82.6 1/
Dalhousie	11	10	17	84.6 1/	66.7 1/	77.3 1/
Laval	24	11	20	100.0 1/	78.6 1/	80.0
Manitoba	20	24	26	83.3 1/	80.0	74.3
McGill	39	42	34	69.6	77.8	68.0
Montreal	21	14	12	80.8	77.8 1/	80.0 1/
Queen's	20	10	18	66.7	55.6 1/	69.2
Toronto	40	39	53	62.5	68.4	70.7
Western Ontario	15	13	20	83.3 1/	81.2 1/	87.0 1/

1/ Percent based on less than 25.

2/ Not included in study for this year.

Table 26. Graduates of American and Canadian medical colleges in private and nonprivate practice by type of practice, 1935 and 1940 classes combined

Type of practice	American colleges		Canadian colleges	
	Private practice	Nonprivate practice	Private practice	Nonprivate practice
Number of graduates ^{1/}				
Total	5,382	1,289	398	129
General practice	1,514	102	126	9
Special attention	897	81	97	4
Limited specialty	2,971	1,049	175	103
Not specified	0	57	0	13
Percentage distribution				
Total	100.0	100.0	100.0	100.0
General practice	28.1	7.9	31.6	7.0
Special attention	16.7	6.3	24.4	3.1
Limited specialty	55.2	81.4	44.0	79.8
Not specified	-	4.4	-	10.1

^{1/} Excludes 36 graduates of American medical colleges and 3 graduates of Canadian colleges who are not in practice; excludes also 13 graduates of American colleges and 4 graduates of Canadian colleges who did not specify whether they were in private or nonprivate practice.

Table 28 shows the number and percentage distribution of 1935 and 1940 graduates of American and Canadian medical colleges in private and nonprivate practice by type of practice. This table demonstrates the very high proportion of graduates limiting their practice to a specialty among those who are in the nonprivate practice of medicine. It also suggests that the trend toward limitation to a specialty has progressed further among the graduates of American colleges than among those of Canadian colleges.

Salaried Positions

The percentage distributions of the

graduates of the various classes by kind of salaried position are shown in table 29. Although there is no consistent trend in the percentage of graduates in full-time salaried positions, the table does indicate that each year full-time salaried positions attract in the neighborhood of 20 per cent of the graduates of our medical colleges. The higher percentage of 1930 graduates in such positions is possibly explained by the economic depression at the time they were graduated and completed their hospital training.

The percentages of 1925, 1930, 1935 and 1940 graduates of the individual medical colleges with full-

Table 29. Percentage distribution of medical college graduates by kind of salaried position, 1915, 1920, 1925, 1930, 1935, and 1940 classes

Kind of salaried position	Total	Year of graduation					
		1915	1920	1925	1930	1935	1940
Number of graduates	17,964	1,834	1,947	3,230	3,699	3,426	3,826
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Full time	20.7	15.2	17.6	17.6	28.5	17.3	23.2
Part time	17.3	16.4	19.9	19.5	19.8	14.2	14.9
None	62.0	68.4	62.5	62.9	51.7	68.5	61.9

Table 30. Percentage of graduates of individual American and Canadian medical colleges with full-time and part-time salaried positions, 1925, 1930, 1935, and 1940 classes

Medical college	Full time				Part time			
	1925	1930	1935	1940	1925	1930	1935	1940
All colleges	17.6	28.5	17.3	23.2	19.5	19.8	14.2	14.9
American colleges	16.7	28.1	16.8	22.9	19.8	19.8	14.0	14.8
Albany	15.4 1/2	-	13.0 1/2	13.0 1/2	15.4 1/2	14.3 1/2	13.0 1/2	4.3 1/2
Arkansas	9.5 1/2	63.6 1/2	25.0 1/2	17.8	33.3 1/2	18.2 1/2	16.7 1/2	17.8
Baylor	20.0	23.9	8.7	11.9	12.0	8.5	13.0	7.1
Boston	11.1	10.5	23.5	25.8	33.3	26.3	14.7	19.4
Buffalo	10.5	17.5	21.7	22.2	28.9	30.0	26.3	36.1
California	9.5	27.0	21.6	22.5	26.2	27.0	13.5	17.5
Chicago Medical School	2/2	2/2	10.0	12.1	2/2	2/2	10.0	6.1
Chicago University	2/2	2/2	31.2 1/2	50.0	2/2	2/2	18.8 1/2	3.8
Cincinnati	21.1	27.9	19.0	19.6	24.6	25.6	11.9	4.3
Colorado	23.1	44.4	25.8	35.0	23.1	19.4	9.7	10.0
Columbia	5.2	19.2	11.1	37.5	36.4	32.9	27.0	20.0
Cornell	7.3	26.2	15.2	34.6	19.5	21.4	15.2	21.2
Creighton	10.7	22.9	12.2	7.5	17.9	8.6	9.8	5.0
Duke	2/2	2/2	6.9	28.3	2/2	2/2	10.3	8.7
Emory	8.2	35.3	5.7	21.6	15.3	11.1	8.6	5.4
Georgetown	13.8	6.6	8.9	13.3	24.1	36.1	22.2	18.3
George Washington	19.4	25.0	13.6	36.9	41.7	-	11.4	11.1
Georgia	57.9 1/2	32.0	9.5 1/2	6.2 1/2	5.3 1/2	4.0	-	25.0 1/2
Hahnemann	5.7	12.8	12.3	17.9	22.9	34.0	12.3	10.3
Harvard	21.9	41.8	22.3	32.2	26.0	23.6	22.3	21.7
Howard	2.4	11.8	5.0 1/2	10.5 1/2	9.8	35.3	30.0 1/2	10.5 1/2
Illinois	18.1	29.7	13.5	30.4	19.3	23.1	9.5	13.7
Indiana	19.2	33.8	11.5	19.7	13.7	7.5	9.8	7.0
Iowa	39.7	30.5	15.2	18.5	11.8	17.0	6.5	3.7
Jefferson	7.0	23.6	9.5	13.3	32.0	19.8	22.1	14.3
Johns Hopkins	36.7	48.4	38.1	28.3	20.0	17.7	14.3	24.5
Kansas	30.4 1/2	40.5	14.3	13.0	26.1 1/2	21.6	14.3	10.9
Long Island	-	5.6	16.9	20.4	17.8	21.1	8.5	10.2
Louisiana	2/2	2/2	-	9.5	2/2	2/2	8.3 1/2	19.0
Louisville	13.7	26.9	20.0	20.3	25.5	14.9	20.0	15.6
Loyola	3.3	16.9	12.5	16.0	16.7	18.6	6.2	20.0
Marquette	3.4	16.3	10.8	22.5	31.0	24.5	8.1	12.5
Maryland	9.7	17.7	15.2	21.2	22.6	16.1	18.2	18.2
Medical Evangelists	16.0	37.5	25.0	27.4	4.0	17.9	6.7	9.7
Meharry	-	8.0	23.1 1/2	-	10.5 1/2	16.9	15.4 1/2	23.5 1/2
Michigan	21.5	28.6	25.7	26.7	15.7	15.9	8.6	13.3
Minnesota	38.9	31.6	15.9	24.1	18.1	12.6	22.2	7.2
Nebraska	27.2	35.6	24.6	26.0	9.9	16.9	14.0	8.0
New York Medical College	6.2 1/2	13.5	8.3	15.6	6.2 1/2	19.2	5.6	21.9
New York University	6.8	11.4	10.7	17.6	26.0	26.1	16.7	21.9
Northwestern	11.3	35.5	17.3	23.8	17.5	17.2	14.3	13.9
Ohio	12.9	31.9	18.5	27.4	21.0	25.5	18.5	13.7
Oklahoma	26.3 1/2	29.3	16.2	17.6	5.3 1/2	19.5	10.8	5.9
Oregon	21.4	37.1	25.0	16.7	28.6	20.0	6.2	16.7
Pennsylvania	23.0	29.9	20.6	21.4	23.0	27.8	18.6	13.6
Pittsburgh	8.3	33.3	14.6	13.8	22.2	25.9	7.3	20.7
Rochester	2/2	22.7 1/2	27.0	39.0	2/2	31.8 1/2	10.8	22.0
Rush	13.8	38.8	12.8	22.8	31.0	18.4	17.0	16.5
St. Louis	6.2	22.1	13.6	25.8	12.3	20.9	11.9	16.7
South Carolina	11.5	25.9	19.2	10.0	19.2	25.9	11.5	10.0
Southern California	2/2	2/2	21.7 1/2	25.7	2/2	2/2	13.0 1/2	8.6
Stanford	22.7 1/2	41.9	22.2	20.0	27.3 1/2	23.3	5.6	12.5
Syracuse	5.7	10.3	8.1	17.9	28.6	33.3	24.3	23.1
Temple	10.3	25.7	13.7	19.0	17.2	14.3	5.9	19.0
Tennessee	31.9	35.0	9.8	25.8	10.6	8.3	7.8	6.5
Texas	17.4	25.0	12.2	17.9	15.2	12.5	10.2	16.4
Tufts	12.7	18.5	19.4	21.5	24.1	24.7	17.7	21.5
Tulane	12.1	27.1	23.4	18.1	16.7	21.4	10.9	12.0
Vanderbilt	14.3	48.5	36.2	25.6	5.7	6.1	11.8	23.3
Vermont	4.2 1/2	9.5 1/2	26.1 1/2	27.6	16.7 1/2	19.0 1/2	26.1 1/2	6.9
Medical College of Virginia	22.2	40.0	22.6	31.7	8.9	17.3	7.5	4.9
University of Virginia	35.6	40.9	28.6	39.0	8.9	15.9	11.4	17.1
Washington	26.8	34.5	11.7	27.3	14.3	15.5	21.7	21.2
Wayne	9.1 1/2	15.0	11.6	18.9	18.2 1/2	15.0	7.0	13.5
Western Reserve	31.3	38.5	7.1	13.6	18.8	11.5	4.8	18.2
Wisconsin	2/2	39.3	15.4	15.8	2/2	25.0	23.1	23.7
Woman's	23.5 1/2	60.0 1/2	17.6 1/2	25.0 1/2	23.5 1/2	10.0 1/2	11.8 1/2	25.0 1/2
Yale	18.9	51.2	34.4	37.8	10.8	11.6	18.8	18.9
Canadian colleges	27.3	34.2	23.8	26.5	16.0	18.8	16.7	16.7
Alberta	-	35.3 1/2	5.6 1/2	17.4 1/2	14.3 1/2	23.5 1/2	27.8 1/2	8.7 1/2
Dalhousie	32.1	23.1 1/2	40.0 1/2	22.7 1/2	10.7	46.2 1/2	6.7 1/2	13.6 1/2
Laval	11.8 1/2	12.5 1/2	14.3 1/2	16.0	23.5 1/2	25.0 1/2	-	16.0
Manitoba	20.0	45.8 1/2	16.7	28.6	16.7	-	26.7	11.4
McGill	30.5	37.5	16.7	36.0	8.5	16.1	25.9	16.0
Montreal	30.8	23.1	16.7 1/2	20.0 1/2	5.1	19.2	11.3 1/2	20.0 1/2
Queen's	2/2	33.3	44.4 1/2	30.8 1/2	2/2	10.0	16.7 1/2	19.2 1/2
Toronto	29.1	45.3	33.3	30.7	25.6	18.8	7.0	20.0
Western Ontario	31.2 1/2	22.2 1/2	25.0 1/2	13.0 1/2	18.8 1/2	33.3 1/2	18.8 1/2	21.7 1/2

1/ Percent based on less than 25. 2/ Not included in study for this year.

time and part-time salaried positions are shown in table 30. Great variation appears not only among the graduates of the different colleges, but also among the graduates of the same college in different years. The graduates of certain of the colleges consistently show a higher than average percentage in full-time salaried positions—for example, Colorado, Harvard, Johns Hopkins, Michigan, Nebraska, Stanford, Medical College of Virginia, University of Virginia, Womans, Yale and Toronto. For the 1940 class, 25 American medical colleges have more than one-fourth of their graduates in full-time salaried positions.

Table 31 indicates the percentage of graduates in each of the six classes with full-time salaried positions, dis-

tributed according to the type of position. This tabulation suggests the following trends:

—A decreasing percentage in full-time positions in tuberculosis sanatoria and in mental hospitals;

—An increasing percentage in full-time medical college teaching and/or research positions;

—A postwar increase in the percentage of full-time positions in the armed forces;

—A definite and marked increase in the percentage of full-time positions in the Veterans Administration;

—A decrease in the percentage in full-time positions as associates or assistants to other physicians;

—A decreasing percentage in full-time laboratory positions.

A similar distribution of gradu-

Table 31. Percentage distribution of medical college graduates with full-time salaried positions by type of position, 1915, 1920, 1925, 1930, 1935, and 1940 classes

Type of salaried position	Total	Year of graduation					
		1915	1920	1925	1930	1935	1940
Number with full-time salaried positions ..	3,723	278	342	570	1,055	592	886
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Hospitals and institutions	25.1	22.3	28.9	25.6	27.0	19.3	25.8
Tuberculosis sanatoria	3.2	4.3	3.2	4.9	3.7	2.2	1.7
Mental hospitals	2.6	1/	1/	3.9	4.6	2.4	1.5
Hospital superintendent	1.9	1/	1/	2.6	1.8	4.0	1.2
Other hospital positions	16.7	16.9	23.7	12.8	16.0	10.5	21.4
Other institutions	0.7	1.1	2.0	1.4	0.9	0.2	-
Medical college teaching and/or research ..	11.2	9.0	14.9	9.5	7.9	11.8	15.1
Public health	10.0	10.4	11.4	10.9	8.3	15.0	7.3
U. S. Public Health Service	2.5	5.0	2.0	2.1	1.8	2.9	2.7
State or provincial health department ..	1.9	0.7	1.8	1.4	1.0	4.2	1.9
Local health department	3.1	2.5	3.5	3.9	2.4	9.9	1.8
Other and unspecified	2.5	2.2	4.1	3.5	3.1	2.0	0.9
Federal or Dominion Government	20.3	29.1	7.2	10.7	16.3	31.2	25.7
Armed forces	10.6	21.9	1.2	7.7	8.4	13.7	12.2
Veterans	7.2	7.2	3.5	1.9	1.6	15.7	12.7
Other	2.5	-	1.2	1.1	6.3	1.8	0.8
Industrial	6.0	7.5	6.7	8.9	4.2	8.1	4.1
Insurance	0.7	2.5	1.5	1.4	0.2	0.3	0.5
Associate or assistant to other physician ..	3.5	2.9	7.0	4.6	5.6	0.2	1.5
Group practice	8.8	4.7	10.8	9.8	5.1	9.0	12.9
Laboratory (n.e.c.)	3.0	4.0	2.4	4.4	6.1	-	0.5
Medical research (n.e.c.)	1.4	0.7	1.8	1.4	1.3	1.0	1.8
Fellowship	1.8	-	0.3	3.7	4.0	-	0.3
All other	5.6	1.1	2.0	4.6	10.1	4.1	4.5
Two or more positions	1.7	4.0	1.8	2.6	3.1	-	-
Not specified	0.9	1.8	2.6	1.9	0.8	-	-

1/ In 1915 and 1920 hospital superintendents and other physicians employed in mental hospitals were included in "other hospital positions."

Trends in Medical Practice

Table 32. Percentage distribution of medical college graduates with part-time salaried positions by type of position, 1915, 1920, 1925, 1930, 1935, and 1940 classes

Type of salaried position	Total	Year of graduation					
		1915	1920	1925	1930	1935	1940
Number with part-time salaried positions ..	3,106	301	388	629	731	486	571
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Hospitals and institutions	9.9	10.3	11.6	8.1	8.5	9.5	13.0
Tuberculosis sanatoria	0.9	-	1.3	0.6	1.2	1.0	0.9
Mental hospitals	0.4	1/	1/	-	0.5	0.6	0.9
Hospital superintendent	0.3	1/	1/	-	1.0	0.4	0.3
Other hospital positions	6.2	8.6	8.5	5.9	3.5	5.2	8.4
Other institutions	2.1	1.7	1.8	1.6	2.3	2.3	2.5
Medical college teaching and/or research ..	13.6	18.6	16.8	15.4	7.4	14.0	14.4
Public health	24.8	28.6	31.2	25.9	21.8	24.7	21.4
U. S. Public Health Service	0.7	0.3	0.5	1.1	0.7	0.4	0.9
State or provincial health department ..	0.9	1.3	1.5	0.2	0.1	1.2	1.6
Local health department	8.1	13.0	11.6	7.9	7.3	6.0	6.5
Other and unspecified	15.1	14.0	17.6	16.7	13.7	17.1	12.4
Federal or Dominion Government	9.5	5.0	2.3	6.4	10.1	15.6	14.5
Armed forces	0.6	0.7	-	-	0.1	0.8	2.1
Veterans	5.1	3.6	1.5	0.2	0.3	14.4	12.1
Other	3.8	0.7	0.8	6.2	9.7	0.4	0.3
Industrial	13.6	18.6	17.0	13.5	10.0	14.8	12.6
Insurance	4.9	4.0	3.3	4.6	11.5	1.2	1.2
Associate or assistant to other physicians	2.8	1.3	3.6	3.5	5.0	0.4	1.2
Group practice	0.7	-	0.3	1.0	-	1.7	1.2
Laboratory (n.e.c.)	2.1	1.0	2.8	2.7	4.4	-	0.2
Medical research (n.e.c.)	0.7	0.7	0.3	0.5	0.8	0.4	1.2
Fellowship	0.3	-	-	0.3	0.5	-	0.3
All other	8.0	1.3	1.0	7.9	8.9	10.5	13.1
Two or more positions	7.9	7.3	7.7	9.1	9.6	7.2	5.6
Not specified	1.2	3.3	2.1	1.1	1.5	-	-

1/ In 1915 and 1920 hospital superintendents and other physicians employed in mental hospitals were included in "other hospital positions."

Table 33. Medical college graduates with full-time and part-time salaried positions by type of practice, 1935 and 1940 classes

Type of practice	1935 graduates		1940 graduates	
	Full-time positions	Part-time positions	Full-time positions	Part-time positions
Number of graduates				
Total	592	486	886	571
General practice	44	123	79	116
Special attention	39	71	46	50
Limited specialty	469	292	734	404
Not specified	40	0	27	1
Percentage distribution				
Total	100.0	100.0	100.0	100.0
General practice	7.4	25.3	8.9	20.3
Special attention	6.6	14.6	5.2	8.8
Limited specialty	79.2	60.1	82.9	70.7
Not specified	6.8	-	3.0	0.2

ates with part-time salaried positions is shown in table 32. Aside from an increase in the percentage of graduates with part-time positions with the armed forces and the Veterans Administration, this table shows no consistent trends.

In table 33 is shown the number of 1935 and 1940 graduates with full-time and part-time positions according to type of practice. As might be expected, this table indicates that by far the largest percentages of both 1935 and 1940 graduates holding either full-time or part-time salaried positions are for those who have limited their practice to a specialty. The percentage thus limiting their practice is considerably lower, however, among graduates in part-time

salaried positions, than among those with full-time salaries.

The distribution of 1935 and 1940 graduates who are limited to a specialty and who hold full-time or part-time salaried positions has been analyzed according to specialty (table 34). The explanation of the relatively high percentage of specialists in neuropsychiatry, laboratory and radiology and in public health among those with full-time salaried positions is obvious. The high percentage of specialists in internal medicine and surgery among those holding either full-time or part-time salaried positions may, in large part, be explained by positions in such fields as teaching and research or service with the

Table 34. Medical college graduates with full-time and part-time salaried positions who have limited practice to various specialties, 1935 and 1940 classes

Specialty	1935		1940	
	Full-time positions	Part-time positions	Full-time positions	Part-time positions
Number of graduates				
Total	469	292	734	404
Eye, ear, nose, and throat	18	31	39	29
Internal medicine	65	82	163	135
Surgery	49	63	150	87
Pediatrics	11	19	27	31
Gynecology and obstetrics	12	17	32	36
Neuropsychiatry	72	31	76	34
Genito-urinary	6	9	16	4
Laboratory and radiology	75	19	117	21
Public health	73	0	35	0
Industrial (medicine and surgery)	17	0	10	1
Syphilology and dermatology	9	10	11	16
All other ^{1/}	62	11	58	10
Percentage distribution				
Total	100.0	100.0	100.0	100.0
Eye, ear, nose, and throat	3.8	10.6	5.3	7.2
Internal medicine	13.9	28.1	22.2	33.4
Surgery	10.4	21.6	20.4	21.5
Pediatrics	2.3	6.5	3.7	7.7
Gynecology and obstetrics	2.6	5.8	4.4	8.9
Neuropsychiatry	15.4	10.6	10.4	8.4
Genito-urinary	1.3	3.1	2.2	1.0
Laboratory and radiology	16.0	6.5	15.9	5.2
Public health	15.6	-	4.8	-
Industrial (medicine and surgery)	3.6	-	1.4	0.2
Syphilology and dermatology	1.9	3.4	1.5	4.0
All other ^{1/}	13.2	3.8	7.9	2.5

^{1/} Includes a few limited specialists who did not specify specialty.

Table 35. Percentage distribution of medical college graduates in various types of practice by internship and residency training, 1935 and 1940 classes combined

Internship and residency training	Total	Type of practice		
		General	Special attention	Limited specialty
Number of graduates	7,142 ^{1/}	1,752	1,061	4,309
Total	100.0	100.0	100.0	100.0
Total with internship	99.7	99.7	99.6	99.7
With residency	70.3	34.1	54.8	69.0
Without residency	29.4	65.6	45.0	10.7
Rotating or general internship ..	79.6	88.2	64.2	74.9
With residency	54.2	29.7	44.9	66.6
Without residency	25.4	58.5	39.3	8.3
Other internship	20.1	11.5	15.6	24.8
With residency	16.1	4.4	9.9	22.4
Without residency	4.0	7.1	5.7	2.4

^{1/} Excludes 39 graduates not in practice and 73 graduates whose type of practice was not reported.

Veterans Administration or the armed forces.

Graduate Training

There has been much discussion and criticism of the long period of training required for the practice of medicine. A study of medical college graduates indicates that continued training beyond the four-year undergraduate curriculum is in large measure self-imposed rather than required. Only six medical colleges in the United States and four in Canada require an internship for the M.D. degree. Twenty-four states and the District of Columbia require an internship for admission to their licensing examinations. The percentage of 1935 and 1940 graduates in the various types of practice according to type of internship, with or without residency training (table 35), indicates that practically all graduates had internship training after graduation. More than one-third of those in general practice and more than one-half of those giving special attention to a specialty and almost nine-tenths of those limiting their practice to a specialty had residency training, fol-

lowing an internship, before beginning practice.

It is of interest that 88 per cent of those in general practice had general or rotating internships as compared with 75 per cent of those who have limited their practice to a specialty. It should be pointed out that table 35 indicates only formal internship and residency training. Although 11 per cent of those who have limited their practice to a specialty did not have formal residency training, most of this group had other forms of training in their specialty before initiating practice.

Table 36 shows for the various specialties the percentage of graduates who have had various types of training beyond the internship. In viewing this table, it should be borne in mind that very few residencies have been offered in public health or industrial medicine. At the same time, it should be noted that more than half of the specialists in public health had other forms of training in their specialty, and only 8 per cent had no training beyond the internship. In contrast, 48 per cent of those

Table 36. Percentage distribution of medical college graduates who have limited practice to various specialties by kind of graduate training, 1935 and 1940 classes combined

Specialty	Total	Kind of graduate training					
		Internship in specialty only	Residency			Other training in specialty	No training in specialty
			In specialty	Other residency	Type not specified		
Total	100.0	0.4	79.2	5.6	4.2	8.1	2.5
Eye, ear, nose and throat	100.0	0.2	84.2	1.9	4.5	8.7	0.5
Internal medicine	100.0	0.7	73.9	6.0	6.3	9.2	3.9
Surgery	100.0	0.2	89.1	4.5	3.0	2.9	0.3
Pediatrics	100.0	2.5	88.0	2.1	2.5	2.5	2.5
Gynecology and obstetrics	100.0	0.2	84.0	3.8	4.5	5.2	2.3
Neuropsychiatry	100.0	-	82.4	5.1	4.5	5.8	2.2
Genito-urinary	100.0	-	84.6	5.1	4.4	5.1	0.8
Laboratory and radiology	100.0	-	87.3	2.2	3.9	5.8	0.8
Public health	100.0	-	0.9	32.1	-	58.7	8.3
Industrial (medicine and surgery)	100.0	-	6.4	22.6	-	22.6	48.4
Syphilology and dermatology	100.0	-	72.3	4.9	2.0	19.8	1.0
All other 1/	100.0	-	61.8	13.8	4.5	13.4	6.5

1/ Includes 6 graduates who did not specify specialty.

Table 37. Medical college graduates who have had residency training by pattern of training and type of practice, 1935 and 1940 classes

Pattern of training	Year of graduation and type of practice					
	1935			1940		
	General practice	Special attention	Limited specialty	General practice	Special attention	Limited specialty
Number of graduates						
Total with residency ...	256	317	1,586	341	275	2,252
No interruption in training ..	210	247	1,089	220	157	724
Interruption between intern- ship and residency	11	14	256	68	52	868
Less than 5 years	6	6	94	44	30	542
5 years or more	5	8	162	24	22	326
Interruption in residency	8	10	122	17	29	495
Less than 5 years	3	6	49	16	27	433
5 years or more	5	4	73	1	2	62
Unspecified	27	46	119	36	37	165
Percentage distribution						
Total with residency ...	100.0	100.0	100.0	100.0	100.0	100.0
No interruption in training ..	82.0	77.9	68.7	64.5	57.1	32.2
Interruption between intern- ship and residency	4.3	4.4	16.1	19.9	18.9	38.5
Less than 5 years	2.3	1.9	5.9	12.9	10.9	24.1
5 years or more	2.0	2.5	10.2	7.0	8.0	14.4
Interruption in residency	3.2	3.2	7.7	5.0	10.5	22.0
Less than 5 years	1.2	1.9	3.1	4.7	9.8	19.2
5 years or more	2.0	1.3	4.6	0.3	0.7	2.8
Unspecified	10.5	14.5	7.5	10.6	13.5	7.3

Trends in Medical Practice

Table 38. Graduates who have limited practice to various specialties and who hold an American Board certificate, 1935 and 1940 classes

Specialty	Year of graduation			
	1935		1940	
	Number with a certificate	Percent of limited specialists	Number with a certificate	Percent of limited specialists
Total	1,127	52.7	942	38.9
Eye, ear, nose and throat	154	71.6	106	50.5
Internal medicine	211	58.9	191	33.3
Surgery	221	58.9	205	35.8
Pediatrics	70	57.4	88	54.3
Gynecology and obstetrics	106	57.6	62	25.7
Neuropsychiatry	104	66.7	72	46.2
Genito-urinary	44	67.7	9	12.7
Laboratory and radiology	114	76.0	140	66.0
Public health	30	41.1	6	16.7
Industrial (medicine and surgery)	1	5.0	0	-
Syphilology and dermatology	31	62.0	31	60.8
All other	41	35.3	32	25.8

limiting their field to industrial practice had no training beyond the internship.

The great impact of World War II upon the graduate training programs of those seeking training in the specialties is clear from table 37, showing by type of practice the 1935

and 1940 graduates with residency training according to any interruptions which occurred in this training. This effect is especially marked with the 1940 graduates. Among this latter group only 32 per cent of those limiting their practice to a specialty had been able to continue their training without interruption.

Table 39. Medical college graduates with certificates from various American Boards, 1935 and 1940 classes

American Board	Number of graduates		Percentage distribution	
	1935	1940	1935	1940
Total	1,137 ^{1/}	946 ^{2/}	100.0	100.0
Pediatrics	72	89	6.3	9.4
Psychiatry and Neurology	103	72	9.1	7.6
Orthopedic Surgery	54	46	4.7	4.9
Dermatology and Syphilology	30	31	2.6	3.3
Radiology	87	90	7.6	9.5
Urology	44	9	3.9	1.0
Gynecology and Obstetrics	104	62	9.1	6.6
Internal Medicine	220	191	19.3	20.2
Pathology	29	49	2.6	5.2
Ophthalmology	66	55	5.8	5.8
Otolaryngology	85	50	7.5	5.3
Surgery	137	148	12.0	15.6
Anesthesiology	25	29	2.2	3.1
Plastic Surgery	3	1	0.3	0.1
Neurological Surgery	8	5	0.7	0.5
Physical Medicine and Rehabilitation	5	3	0.4	0.3
Preventive Medicine and Public Health	35	6	3.1	0.6
Proctology	3	1	0.3	0.1
Thoracic Surgery	4	0	0.4	-
Certificates from two Boards	19	7	1.7	0.7
Not specified	4	2	0.4	0.2

^{1/} Includes 10 graduates who are not limited specialists.

^{2/} Includes 4 graduates who are not limited specialists.

It will be noted that the percentage of graduates who are limited to a specialty and certified by an American board is much smaller for the 1940 graduates than for the graduates of 1935 (table 38). This difference is undoubtedly due to the fact that although the study was made 10 years after the graduation of the 1940 group, many had their graduate training interrupted by the war to such an extent that they have not yet had opportunity to fulfill the requirements of the specialty boards.

Further details on the specialty board certificates held by 1935 and 1940 graduates appear in table 39. Although this table might be expected to indicate the relative popularity of the various specialty boards with the 1935 and 1940 graduates, it is likely that a considerable number of 1940 graduates who are plan-

ning to get board certification have not as yet met the full requirements.

Acknowledgements

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TABLE 1—Reproduced below and on page 41
is the form of questionnaire used in the study
(see page 3).

QUESTIONNAIRE

Survey of 1935 and 1940 Graduates of Medical Schools of United States and Canada

Trends in Medical Practice

Questionnaire

1. Name _____
(last name) (first name) (middle initial)
2. Place of practice _____ 3. Sex (M or F) _____ 4. Year of birth _____
(city) (state)
5. Medical college _____ 6. Year of graduation _____
7. City and State of residence at time of entering medical college _____
8. Type of practice (check the one to which most time is devoted):

<input type="checkbox"/> Individual practice	<input type="checkbox"/> Federal government
<input type="checkbox"/> Group practice	<input type="checkbox"/> Hospital administration
<input type="checkbox"/> State or local health department	<input type="checkbox"/> Industrial practice
<input type="checkbox"/> Teaching and/or research	<input type="checkbox"/> Other _____ (specify)
9. Specialty

<input type="checkbox"/> General practice only	
<input type="checkbox"/> General practice with special attention to specialty.	Specialty _____
<input type="checkbox"/> Practice limited exclusively to specialty.	Specialty _____
10. (a) If a specialist, after how many years of general practice did you limit your practice to a specialty?

- (b) If a specialist, do you hold a certificate from an American Board? Yes ☐ No ☐
Name of Board _____

11. (a) If your practice is not now limited to a specialty, do you contemplate such limitation?
Yes ☐ No ☐
- (b) If yes, when?
- (c) Specialty you plan to pursue when you limit
12. (a) If you hold a full-time salaried position, what is the nature of the work?
-
- (b) If you hold a full-time salaried position, do you engage in the private practice of medicine as well? Yes ☐ No ☐
13. If you hold a part-time salaried position, what is the nature of the work?
-
14. (a) If you hold any non-salaried position on a percentage or fee basis, is it
☐ Full-time? ☐ Part-time?
- (b) If you hold such a position, what is the nature of the work?
-
15. (a) What type of internship did you have? (give dates)
-
- (b) What type of residency did you have? (give dates)
-
- (c) What other special training have you had since graduation? (give dates)
-

REMARKS:

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